Contractor Report

Factors Associated With Decline of Test Scores of High School Seniors, 1972 to 1980

A Study of Excellence in High School Education: Educational Policies, School Quality, and Student Outcomes

Center for Statistics

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Prepared for the Center for Statistics under contract OE-300-83-0247 with the U.S. Department of Education. Contractors undertaking such projects are encouraged to express freely their professional judgment. This report, therefore, does not necessarily represent positions or policies of the Government, and no official endorsement should be inferred. This report is released as received from the contractor.

December 1985

CS 85-217

ACKNOWLEDGEMENTS

This report is the first of two technical studies conducted by Educational Testing Service under Contract No. 300-83-0247 with the National Center for Education Statistics. The work presented here represents the efforts of many people.

The primary authors for Chapter I were Ruth Ekstrom and Margaret Goertz. Donald Rock and Barbara Heyns also contributed material to this chapter.

The main portion of Chapter II was written by Donald Rock. Thomas Hilton and Ruth Ekstrom also contributed to this chapter.

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Chapter VIII and IX were written by Donald Rock.

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This report benefited from the work of several members of the ETS Division of Statistics and Psychometric Research and Services. Judith Pollack directed all data analyses, assisted by Thomas Jirele. Frederic Lord and Marilyn Wingersky provided advice and assistance in the IRT analysis. ETS visiting fellows Maria Pennock-Roman and Valerie Lee also made substantial contributions to this work.

Secretarial work on this report was done by the ETS Vydec staff and by Eleanor Hibbs, and Irene Smith. Kandy Olbrick, Project Manager, coordinated report production.

This report also benefited from the assistance of individuals outside of ETS. The project advisory committee members -- Charles Bidwell, University of Chicago; Barbara Heyns, New York University; and Robert Linn, University of Illinois -- provided valuable input. The final version of this report owes a considerable debt to the review by Lyle Jones, University of North Carolina; and Richard Shevelson of Rand, and by other anonymous reviewers.

Finally, we wish to thank the staff of the National Center for Education Statistics who provided us with a wide range of information and assistance that facilitated our work with these data bases. Special thanks go to our Project Officer, William Fetters.

EXCELLENCE IN HIGH SCHOOL EDUCATION: CROSS-SECTIONAL STUDY, 1972-1980

Executive Summary

In 1983, eight major national studies reported on the status of public education in the United States. These reports sounded a common theme: The American educational system is in trouble. The major evidence cited in support of this claim was that academic achievement, as measured by performance on the College Board's Scholastic Aptitude Tests and the National Assessment of Educational Progress, had declined. This situation was attributed to demographic changes, lower standards, lower expectations for students, a less rigorous curriculum, and the poor academic preparation of new teachers. However, there is little systematic research that relates these factors to test score decline.

This study, which was carried out by Educational Testing Service (ETS) under contract to the National Center for Education Statistics (NCES), utilized NLS and HS&B data to document changes in the academic achievement of high school seniors between 1972-1980 and to identify the school and student factors related to these changes. The study findings show that there were significant changes in test scores, in high schools, and in student behavior. They also show that these changes were interrelated.

There were declines on all three achievement tests between 1972 and 1980. The largest declines occurred in vocabulary and reading. The average senior in 1980 (a student at the 50th percentile in 1980 in vocabulary and reading achievement) would rank at about the 41st percentile among the 1972 seniors in both vocabulary and reading. Similarly, a 1980 senior with average mathematics achievement in 1980 would be at the 45th percentile when compared with the 1972 seniors. When these changes are measured in standard deviation units, the declines are .22 for Vocabulary, .21 for Reading, and .14 for Mathematics, indicating a greater decline in verbal than in quantitative skills.

There were also significant changes from 1972-1980 in the characteristics of high school seniors, their homes and families, the schools they attended, and their attitudes and behaviors.

- o Some demographic changes occured, such as increases in percentages of minority-group students and population shifts from the Northeast to the South.
- o The proportion of students in the academic curriculum declined, as did the number of semesters of social studies, science and foreign language taken, and the amount of homework done.
- o The percentage of schools with a high dropout rate increased. The number of laboratory courses taken by students fell, the proportion of students believing there should have been more

academic emphasis increased, and students had lower opinions of their school's reputation, quality of academic instruction, and physical condition of buildings.

- The parents of the 1980 seniors were better educated and had higher educational aspirations for their children, but provided fewer study aids.
- Students' interest in correcting social and economic inequities declined, while interest in making money and in job success increased. Students became more self-confident between 1972 and 1980 but less sure of their ability to control the course of their own lives.

The impacts of the above changes on test scores were examined. It was found that:

- Changes in student behaviors and in school characteristics played the major roles in test score declines.
- The demographic shifts were a minor factor in test score decline.
- The changes in the home educational support system resisted test score declines.

Changes from 1972 to 1980 at both the school level and student level that seem to have contributed most to the decline were: (1) a greater likelihood of being in the general or vocational curriculum rather than the academic curriculum, (2) a drop in the frequency with which students report taking "traditional" college preparation core courses such as foreign languages, science and/or courses requiring laboratory work, (3) a decrease in the amount of homework done, and (4) an increasing dissatisfaction among the students with the lack of emphasis on academics in the schools.

Taken together, these findings suggest that the major factor contributing to test score decline was a decreased academic emphasis in the educational process. The impact of this shift in emphasis fell primarily on White and on upper and middle class students, however. Federal and state programs designed to strengthen basic skills in reading and mathematics appear to have prevented comparable score declines among low socioeconomic status Blacks in Vocabulary and Reading and to have contributed to the score increase among this same group in Mathematics.

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CHAPTER I

INTRODUCTION

The quality and effectiveness of American education has once again become a critical national issue. The National Commission on Excellence in Education (1983), appointed by Secretary of Education T. H. Bell, decries the "rising tide of mediocrity" in public education. The prestigious Twentieth Century Fund (1983) asserts that American public schools are in trouble. The National Task Force on Education for Economic Growth (1983), consisting of forty-one eminent leaders from state government and the corporate world, concludes that declining standards in public schools undermine both this country's efforts to sustain economic recovery and our competitive economic position internationally.

Research on schools tends to echo the message of such commissions, if not the tone. Recent studies of American high schools are premised on the assumption that secondary education is the weakest link in the instructional chain and the one most in need of reform. They argue that the basic structure of the American high school has not changed in nearly a century and no longer serves its purpose well (Sizer, 1983). While our schools have adjusted to a host of new demands in the last twenty-five years, a large gap remains between school achievement and the type of education students need in order to meet the demands of a technological society (Boyer, 1983). Students engage in a relatively narrow range of classroom activities and become more interested in personal and vocational goals and less interested in the intellectual goals of school as they get older (Goodlad, 1983).

Such studies have received and will continue to receive much publicity. Regrettably, the analyses and conclusions rest on relatively small samples of schools and pay scant attention to changing conditions. Does the average high school assign less homework, require fewer course credits for graduation, or permit more off-campus or part-time study than was true ten years ago? To what extent has fiscal retrenchment or school policy altered the quality, size, salary schedules, and degree of turnover among teachers? Commentators have linked the decline in test score performance among students to changing educational standards and criteria for graduation, but little systematic evidence exists to suggest that changes in school organization or curriculum are responsible. These and a host of related questions on the causes and consequences of educational effectiveness demand scrutiny.

Without doubt, the longitudinal studies initiated by the National Center for Education Statistics are the best resource for a systematic examination of both the current state of secondary schooling and the degree of change since the early 1970s. They offer an opportunity to conduct research pertinent to policy recommendations regarding effective reform. No other national data set on administrative practices and policy, on curriculum and requirements, and on student outcomes exist for an assessment of the changing nature of secondary education in this country. These data promise to yield a rigorous and exacting portrait of

American secondary education and the American high school student during a momentous decade of change. The longitudinal frame permits an investigation of the effects of variation across schools in educational processes and an adequate data base to infer causal relationships between school and student characteristics.

A. STUDY RATIONALE AND ISSUES TO BE DISCUSSED

This technical report is one of two reports that will be produced by Educational Testing Service as part of the Study of Excellence in High School Education. The general, long-term goal of this project is to improve school quality and, thus, produce excellence in high school education. The specific, short-term goals are to conduct two studies: 1) a cross-sectional analysis comparing 1972 high school seniors and their schools with 1980 high school seniors and their schools, which is the basis of this report, and 2) a longitudinal analysis relating growth and development of 1980 high school sophomores to their schooling experience over the period 1980-82.

This cross-sectional study has three major objectives: 1) to document changes in achievement and other student outcomes over time both nationally and by selected subpopulations, 2) to identify the school and student variables that are related to changes in student achievement and other outcomes, and 3) to present this information to educational policymakers in a way that will illuminate and assist their decision making.

There are both substantive and analytical issues addressed in this report. By substantive issues, we mean what we are looking at. By analytical issues, we mean how we look at these topics. The basic problem concerns the identification of school and student factors that are related to student outcomes. The major focus, however, is on those variables that can be changed through educational policy rather than on predetermined school characteristics.

The substantive issues are:

- How did the American high school and its students change between 1972 and 1980?
  - o Changes in student characteristics and family background.
  - o Changes in student body characteristics, staff characteristics, educational programs, teaching methods, school facilities, and students' educational experiences.
  - o Changes in tested achievement and in school grades.
  - o Changes in students' educational and occupational aspirations, attitudes and values, and school behaviors.
- What factors account for changes in high school student outcomes?

- Demographic characteristics of students.
- Student behaviors and attitudes (e.g., amount of homework done, number and type of courses taken, educational vs. occupational aspirations, etc.).
- School characteristics (e.g., characteristics of teachers, curricular offerings, instructional methods, etc.).
- Home educational support (e.g., parental influence on students' plans, study aids in the home, etc.).

The analytical issues are:

- What kinds of methodologies are needed to identify determinants of change in cross-sectional data?
- How can the effects of student characteristics be differentiated from the effects of school characteristics on student outcomes?

B. RELEVANCE OF STUDY FINDINGS FOR EDUCATIONAL POLICY AND PRACTICE

In the last year, eight major studies have reported on the status of American education today (National Commission on Excellence in Education, 1983; Twentieth Century Fund, 1983; Education Commission of the States, Task Force on Education for Economic Growth, 1983; College Entrance Examination Board, 1983; The Carnegie Corporation, 1983; Sizer, 1983; Boyer, 1983; and Goodlad, 1983). These studies sounded a common theme: The American educational system is in trouble. The National Commission report issued the strongest indictment of the system, stating that the average graduate of our schools and colleges today is not as well-educated as "the average graduate of 25 or 35 years ago, when a much smaller proportion of our population completed high school and college."

The reports presented the following evidence of the scope and seriousness of the decline in academic achievement:

- Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched (National Commission, p. 8).
- The College Board's Scholastic Aptitude Tests demonstrate a virtually unbroken decline from 1963 to 1980, with the number and proportion of students demonstrating superior achievement also having dramatically declined (National Commission, pp. 8-9).
- Successive national assessments throughout the 1970s have shown a steady decline in mathematics and science achievement (National Task Force, p. 5).
- Remedial mathematics enrollments at 4-year colleges increased 72 percent between 1975 and 1980 (National Task Force, p. 5).

o Many 17-year-olds do not possess the "higher order" intellectual skills needed to function in a technological society.

The reports identified five areas that in large part explained the student outcomes mentioned above. First, demographic changes and changes in societal values have changed the role of schools. The schools have to teach more "hard-to-educate" youngsters skills that were once possessed by only a few, while providing a range of social services, such as performing the role of a parent, nurse, nutritionist, sex counselor and policeman (Twentieth Century Fund, 1983). Second, schools now expect and require less of students. The amount of homework assigned to high school seniors has decreased, the difficulty of subject matter has been reduced, grades have become inflated, and "minimum competency" examinations have replaced more rigorous standards of performance. Third, the content of education is less rigorous. More students are taking "general track" courses; fewer students are choosing to enroll in advanced mathematics and science courses. An emphasis on "back-to-basics" has diminished the concern for science and has emphasized computational skills rather than the mastery of mathematical concepts. Fourth, American high school students spend too little time on school work in terms of the number of hours spent in school, the number of days in the school year, and the time spent in class on academic instruction. For example, within a week's time of approximately 25 instructional hours in the nation's elementary schools, only one hour is devoted to science and less than four hours are devoted to arithmetic. Finally, not enough of the more academically able students are attracted to teaching. Existing teacher preparation and in-service training programs need improvement.

This study's research questions, listed in the following section, have been designed to inform policymakers about the sources of our current educational problems and to identify educational practices that appear to be important for educational excellence. For example, commentators have attributed the declines in test scores to higher levels of truancy and negative attitudes toward school; to increased drug and alcohol abuse by students; to increased amounts of time spent watching television rather than doing homework; to an increase in labor force participation by students; and to family factors such as increased divorce, marital disruption and smaller family size. This study compares the amount and rates of cognitive change among students having some of these attributes, and determines whether the declines in test scores are equal across such groups. If such factors yield common patterns of change, or if the composition of students in such categories between 1972 and 1980 does not change, these factors are unlikely candidates to explain the structural declines in test scores and other educational outcomes. These data, since they apply to comparable cohorts, are more pertinent to assess such changes than prior analyses based on SAT scores (Austin & Garber, 1982; Jencks, 1978). By comparing the 1972 and 1980 student populations, it is possible to isolate more sources of test score decline that relate to a changing profile of student characteristics during this period.

Although prior SAT score decline studies focused on a small portion of the high school cohort, they have been useful in generating hypotheses to explain test score decline. The Advisory Panel on the Scholastic Aptitude Test Score Decline (Wirtz, 1976) concluded that the decline had occurred in two phases, with a different explanation of each. In the first, from 1960 to 1972, the explanation rested in the fact that the SAT-taking population had undergone a drastic change, from a relatively small segment of the high school population headed for elite private colleges largely in the East to a much larger segment of the high school population that was more broadly representative of the range of abilities of high school seniors in the United States. In the second phase of the score decline, from 1972 to 1980, the number of students taking the SAT remained roughly constant, and also the total number of high school seniors. But throughout the period the score decline continued, apparently because of some other factor or factors. After considering approximately 75 hypotheses, the panel members concluded that "there is no one cause of the SAT score decline, at least as far as we can discern, and we suspect no single pattern of causes."

The panel did, however, mention six possible causes:

1. the proliferation of elective courses,
2. the lowering of academic standards,
3. the competition of television,
4. the weakening of the role of the family in the educational process,
5. national tensions, and
6. diminution of students' learning motivation.

This section has provided an introduction to the policy issues that are addressed in this study. The research questions expand on these issues.

C. MAJOR RESEARCH QUESTIONS AND HYPOTHESES

The following questions are examples of those addressed in the analysis.

1. Descriptive Cross-Sectional Analysis

a. How much and in what direction did test scores change between 1972 and 1980? Are these changes consistent across type of student (gender, race/ethnicity, SES), type of school, region of the country and curriculum? Are these changes consistent across test content areas?

We hypothesize, based on similar SAT analyses, that:

- Test scores declined between 1972 and 1980;
- The test score decline was less for minority students than for majority students;
- The size and direction of the test score changes varied across curriculum (e.g., academic, general and vocational); and
- The changes in test scores were greater on things taught directly (e.g., mathematics) than on things taught less directly (e.g., vocabulary).

b. How much and in what direction did students' self-reported grades change between 1972 and 1980? Are these changes consistent across type of student, type of school, region of the country and curriculum?

We hypothesize, based on other studies showing grade inflation, that there was an increase in mean grades reported from 1972 to 1980. We also hypothesize that this change was relatively uniform across students, schools, regions, and curriculum.

c. How much and how did students' educational and occupational aspirations change from 1972 to 1980? Are these changes consistent across type of student curriculum?

We hypothesize that:

- More 1980 seniors than 1972 seniors planned post-secondary education;
- More 1980 seniors than 1972 seniors planned to attend a community college;
- The rise in educational aspirations was greatest among women and minorities;
- More seniors in the general curriculum had aspirations for college in 1980 than in 1972;
- Students' occupational aspirations changed between 1972 and 1980; more 1980 seniors were interested in professional and technical occupations, while fewer 1980 seniors were interested in clerical occupations or in full-time homemaking; and
- Occupational aspirations changed more for females and minorities.

d. How much and how did student behaviors, attitudes and values change between 1972 and 1980?

We hypothesize that:

- The amount of homework done by students decreased from 1972 to 1980 and that this decline was consistent across curriculum;
- The participation rates in extracurricular activities increased from 1972 to 1980, but the percentage involved in honorary societies and other academically oriented activities declined;
- Students' evaluations of their school experiences were less positive in 1980 than in 1972;
- Students took fewer math, science and foreign language courses in 1980 than in 1972;
- There were fewer students enrolled in the academic curriculum and more enrolled in the general curriculum in 1980 than in 1972;
- There was an increase, from 1972 to 1980, in students' confidence about their ability to complete college and this increase was greatest for women and minorities; and
- More 1980 students were concerned with money and job security and fewer with social problems than 1972 students; these patterns were consistent across all groups of students;

e. How much and how did student background and family characteristics change between 1972 and 1980?

We hypothesize that:

- There was a higher proportion of minority students, educationally disadvantaged students, and students classified as handicapped in the schools in 1980 as compared with 1972; and
- Parents of 1980 students had a higher mean education level than parents of 1972 students.

f. How much and how did schools change between 1972 and 1980?

We hypothesize that:

- There were more schools in which the majority of students were enrolled in a nonacademic curriculum in 1980 than in 1972;
- The student teacher ratio decreased from 1972 to 1980;
- Advanced placement courses were more available in 1980 than in 1972;

- Student absenteeism and dropout rates were higher in 1980 than in 1972;
- Teacher turnover rates were higher in 1980 than in 1972;
- A larger percentage of teachers had master's degrees or doctorates in 1980 than in 1972; and
- There were more schools that were predominantly minority in 1980 than in 1972.

2. Relational Cross-Sectional Analysis

a. What was the effect of changes in demographic characteristics of high school seniors, changes in student attitudes and school-related behaviors, changes in students' home environments, and changes in school characteristics on test scores?

We hypothesize that the test score decline reflects:

- A change in the racial/ethnic mixture in the sample of test-takers;
- A decline in the amount of time devoted to traditional academic subjects, such as English, foreign languages, science, mathematics, and social science;
- A reduction in the amount of writing required of students and in the number of laboratory courses taken;
- A reduction in the amount of time students devote to doing homework;
- An increase in the holding power of the high school;
- An increase in parental education; and
- An increase in parents' educational aspirations for students.

b. Do members of different subgroups experience different educational processes which explain differences in achievement outcomes? Did these subgroups go through different educational processes in 1972, and in 1980?

There are a number of other hypotheses which have been discussed in the popular press and would therefore be tempting to investigate (such as score decline being related to an increase in student television watching, to a deterioration in discipline in the schools, or to an increase in students coming from single parent families). Unfortunately, the cross-sectional data do not permit these comparisons. Many of these hypotheses, however, will be explored in the longitudinal 1980-82 study.

D. REPORT OVERVIEW

The remainder of this report is divided into ten chapters. The next chapter (Chapter II) describes the study instrumentation and methodology. Next are four chapters which provide a descriptive analysis of the changes between 1972 and 1980. Chapter III provides a description of the two samples. It also covers changes in student background and family characteristics. Changes in schools are covered in Chapter IV; this includes changes in student body characteristics, in staff characteristics, in educational programs and teaching methods, and in student evaluations of school facilities vs. their educational experiences. Chapter V covers changes in test scores and in self-reported grades. In Chapter VI changes in students' school-related behaviors, attitudes and values are described. The next three chapters provide a relational analysis focusing on test score changes as the major outcome. Chapter VII covers the partitioning of mean score changes. In Chapter VIII partitioning is done using analysis of covariance to look at the relative impact of blocks of variables on score changes while controlling for other blocks of variables. The final relational analysis, covered in Chapter IX, uses path analysis to explore how the members of those groups which showed the greatest test score decline differ in educational processes from the members of those groups with less decline. Chapter X provides a summary and policy recommendations.

CHAPTER II

INSTRUMENTATION AND METHODOLOGY

This chapter describes, briefly, the tests and questionnaires used in this study and the methods used to analyze them. Readers interested in more detailed information about the tests should refer to the Psychometric Analysis report for this study (Rock et al., 1984a). Further information about the analysis methodology can be found in the project Research Design Statement (Rock et al., 1984b).

A. INSTRUMENTATION

Two different types of instruments were used to obtain the data used in this analysis--tests and questionnaires. Both the test battery and the questionnaires underwent a number of changes between 1972 and 1980. This cross-sectional analysis is, therefore, limited to the test and questionnaire items that are common to both years.

1. Tests

The cognitive[1] tests used in the National Longitudinal Study of the High School Seniors Class of 1972 (NLS) and in High School and Beyond (HS&B) have a long and complex history. In this chapter we will provide a brief description of the test batteries and their interrelationships.

a. 1972 Senior Tests. In the spring of 1972, 18 randomly selected students in each of a sample of 1,044 randomly selected high schools took a battery of cognitive tests as part of the base-year survey of the longitudinal study which was to continue for an unspecified time. As of this writing, four follow-ups have been conducted, and a fifth follow-up is in the planning stage. The battery consisted of six tests which are listed in the left-hand column of Figure 1. These tests and a brief description of each follow:

Vocabulary - Fifteen moderately difficult items consisting of one word followed by five possible synonyms. Test-taker selects one word or phrase whose meaning is closest to that of stem. Time - 5 minutes.

Picture-Number - Test of short-term associative memory in which the test-taker first studies pairs of pictures and 2-digit numbers and then is shown the pictures only and is asked to select the number on the answer sheet that was paired with picture. Time - 3 minutes to study 15 items in Part 1, and 2 minutes to answer; similarly for Part 2.

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[1] We use the adjective "cognitive" to describe a broad category of tests that includes basic intellectual skills, achievement, developed ability, and scholastic aptitude.

Reading - Relatively unspeeded measure of reading comprehension in which 5 reading passages are given and test-taker answers multiple-choice questions (with 5 options) concerning what is stated or implied in each passage. Time - 15 minutes.

Letter Groups - A test of inductive reasoning where each item consists of five groups of letters. The test-taker determines which four groups share a common characteristic and indicates the group which differs from the others. Time - 15 minutes.

Mathematics - Twenty-five items in which the test-taker indicates which of two quantities is greater, or equal, or that the data given are insufficient to make a decision. The items were selected not to require specific algebraic, geometric or trigonometric skills. Time - 15 minutes.

Mosaic Comparisons - This test was used as a highly speeded measure of perceptual speed and accuracy. The subject compares one hundred and sixteen pairs of tile-like patterns to detect the location of small differences in the designs. Time - Part 1 (56 items), 3 minutes; Part 2 (33 items), 3 minutes; Part 3 (27 items), 3 minutes.

Total testing time - 69 minutes.

The test battery was administered by a survey administrator in each school who usually was a guidance counselor or an experienced teacher. The students marked their answers in a separate mark-sensed answer sheet, not in the test booklet.

b. 1980 Tests. In the spring of 1980, as part of High School and Beyond, 36 randomly selected seniors in each of 1,015 high schools took test batteries that roughly paralleled the 1972 test. As shown in Figure 1, the 1980 tests were quite similar to the 1972 tests. The entire Letter Groups test was dropped, as well as parts of two other tests, to make room for a test of spatial relations (Visualization in Three Dimensions) and a self-report measure of the student's reactions to the testing situation ("Questions About the Tests"). Brief descriptions of the two instruments added to the 1980 battery follow.

Visualization in Three Dimensions - This test is a measure of "the ability to visualize how a figure would look after manipulation in three-dimensional space, by folding a flat figure to make a three-dimensional figure." Each of the 16 items in the test has a drawing of a flat piece of metal in the left-hand column and drawings of five objects on the right, only one of which could be made by folding the flat piece of metal. The test-taker selects the one object that could have been made. Time - 9 minutes.

Questions About the Tests - This 6-item self-report questionnaire was designed to tap factors that may have prevented the test-takers from performing as well as they might have under optimum testing conditions. Included are questions inquiring about the importance of the testing to the students, their concern about doing well, how much they enjoyed participating, and how they felt while taking the tests. Time - 5 minutes.

The total 1980 test battery and the time allowed were as follows:

Vocabulary	
Part 1	5 minutes
Part 2	4 minutes
Reading	15 minutes
Mathematics	
Part 1	15 minutes
Part 2	4 minutes
Picture-Number	5 minutes
Mosaic Comparisons	
Part 1	3 minutes
Part 2	3 minutes
Visualization in Three Dimensions	9 minutes
Questions About the Tests	5 minutes
Total time -	68 minutes

c. Common Items. In a report to NCES (Donlon et al., 1978), ETS recommended that the Letter Groups, Picture-Number, and Mosaic Comparisons tests be dropped from the test battery. Surveys of users of the 1972 public release tape and of the research literature indicated that data from these three tests had been little used. Also, it had been argued that "Measures of basic cognitive skills are not designed to assess patterns of change over time" (Haertel & Wiley, 1978). ETS concurred with these views. In the Psychometric Analysis, we found that mean scores increased dramatically between 1972 and 1980 on both the Mosaic Comparisons test and the Picture-Number test. Both of these tests require careful supervision during their administration. Without this control, examinees can refer back to the study pairs of pictures while taking the Picture-Number test and inflated scores would result. Mosaic Comparisons is highly speeded, and scores can be dramatically increased if time limits are not carefully monitored. The Psychometric Analysis found the correlations between the first and second halves of the two parts of the Mosaic Comparisons test were low (.25 to .36), strongly suggesting that this test has low reliability. In addition, as described in the Psychometric Report, in 1972 the sample members responded on a separate answer sheet and in 1980 they responded in the test booklet--a change which is known to affect responses. Given all of these factors, it was decided to eliminate the Picture-Number and Mosaic Comparisons tests from further analysis for this study.

Of the remaining tests, Vocabulary and Reading were identical in the two batteries and 18 of the 25 mathematics items either were identical (12) or had minor editorial or format changes (6). Item response theory (IRT) was used to score and equate tests across populations. Using IRT, Mathematics, Vocabulary and Reading scores were put on the 1972 score scale. The IRT equated items are the basis of the test score comparisons in this cross-sectional study. Additional technical information is provided in the Psychometric Analysis (Rock, et al., 1984a).

2. Questionnaires

The 1972 and 1980 data collections also utilized questionnaires to gather information from students and their schools. These questionnaires provide a rich source for studying the changing demographics of American high schools, changing school conditions, and changing attitudes, values and behaviors among the students.

There were four data collection forms used in 1972 in addition to the student tests. These were: the Student Questionnaire, the Student's School Record Information Form, the School Questionnaire, and the Counselor Questionnaire. In 1980, a Student Questionnaire, a School Questionnaire, and a Teacher Questionnaire were the main data collection instruments supplementing the student tests.

The 1972 Questionnaire is divided into four sections covering: 1) high school experiences, 2) attitudes and plans, 3) plans for the future (with separate subsections for those planning to work full-time during the year they leave high school, those planning to enter military service, those planning to become homemakers, those planning to take vocational or technical courses, those planning to go to a two- or four-year college or to a university, and those planning part-time work), and 4) a final section with information primarily demographic in nature. There were a total of 107 items in this questionnaire. The 1980 Senior Questionnaire covers much of the same material as the 1972 version. There are a total of 121 items. Although many of the items are the same in these two questionnaires, there was addition, deletion, and rephrasing of questions. Table 1 in Appendix A shows the comparable or similar items from the two student questionnaires used in this analysis.

The 1972 School Questionnaire is divided into three sections covering: 1) program and student information, 2) resources, and 3) the grading system. The 1980 School Questionnaire is similar but, again, includes various changes. Table 2 in Appendix A shows the comparable or similar items from the two school questionnaires.

Data from the other questionnaires were used primarily to confirm or elaborate on the information in the Student and School questionnaires.

B. METHODOLOGY

This section describes the methodology for the 1972 and 1980 comparisons. The descriptive analysis not only documents changes in student achievement, background, behavior and attitudes and in their schools, but it also provides a subset of critical input and process variables for use in the relational analysis.

The classification variables and subcategories used in this cross-sectional descriptive analysis are shown below. A complete list of the outcome variables are included in Appendix A, and the classification variables are defined in Appendix B.

1. Sex--male and female;
2. Race/Ethnicity--White, Black, Asian-American, American Indian, Mexican-American, Puerto Rican, and Other Hispanics;
3. Socioeconomic Level--high, middle, and low;
4. Type of School--public, private, and private-parochial;
5. Community Type--urban, suburban/small city, and rural;
6. Geographic Region--Northeast, North-Central, South, and West;
7. Curriculum Type--academic, general, and vocational; and
8. Administrative Population--1972 and 1980.

For each continuous outcome variable, we provide an introductory descriptive analysis table showing the mean and standard deviation for that variable, for 1972 and 1980, by each of the first seven classification variables. We also show the 1980-1972 mean difference and the effect size of this difference. For categorical outcome variables we show the percentage choosing each option and the 1980-1972 in percentages. For most outcome variables, we provide additional descriptive analyses showing 1972 and 1980 differences categorized in three-way tables which include sex by curriculum, socioeconomic status by race, socioeconomic status by school type, socioeconomic status by geographic region, socioeconomic status by curriculum, and socioeconomic status by community type.

An asterisk on a number in the column "1980-1972 difference" indicates that the difference between means is statistically significant at the .05 level or less. The standard errors used in the statistical test of the difference between test score means uses a sample design effect correction (deft) of approximately 1.6. The test score correction factor (deft) used was based on the 1980 total Senior sample. The deft for the 1972 sample was slightly less, but in the interest of providing a conservative test, the constant value of 1.6 was used for test scores in both samples. This total sample deft was also used to correct the test score standard errors within subpopulations. This decision also leads to conservative statistical tests since in the vast majority of 1972-1980 subsample comparisons, the subsample defts were slightly smaller than the deft of the total sample. It was felt that it would be more judicious to err on the side of finding no differences (i.e., no change), especially in those instances where there were relatively few numbers of data cases. Separate defts for 1972 and 1980 were used for correcting the standard errors of percentages. The total sample defts were used in the subsamples as well as for totals.

The column labeled "effect size" is the difference between means divided by the pooled standard deviation. This measure of effect size is scaled in terms of standard deviation units, and since it is independent of sample size, it allows one to make rough comparisons of the relative magnitude of changes across populations and/or in outcome variables having different metrics.

What can one say about whether an effect size is small, moderate, or large? Cohen (1969) suggests that comparisons of treatments in the social sciences frequently yield effects sizes of .20 and below while very few ever yield effect sizes as large as .80 and above. Similarly, Smith and Glass (1977) report average effect sizes of .68 in treatment-control comparisons. It should be pointed out here that these notions about what is a small, moderate, or a large effect are for the most part gathered from empirical data where the comparison is between a group receiving a formal intervention and a non-treated control group, or alternatively a group receiving what is believed to be an inferior treatment.

Since the comparison here is between two relatively similar populations, receiving similar treatments but separated in time, one should probably be more modest with respect to expectations about obtained effect sizes. That is, considering the context of these 1972-1980 comparisons the following categories of effect sizes will be used in succeeding interpretations. A statistically significant effect between 10 percent and 20 percent of a pooled standard deviation will be considered a small but practically significant effect. Effect sizes of 21 percent to 50 percent of a standard deviation will be considered to be moderate-sized effects while 51 percent of a standard deviation and larger will be considered large effects.

1. Descriptive Analysis

The descriptive analysis is targeted toward answering four major questions:

a. How did the students and their background characteristics change between 1972 and 1980?

In Chapter III we describe the 1972 and 1980 samples. We show changes in the percentage of males and females, the percentage of students in each racial/ethnic category, the percentage of students enrolled in different curricula, the socioeconomic background of the students, and the community type and region of the country in which they reside. We also examine changes in parental education and occupation.

b. How did schools, their educational programs, and other learning conditions change between 1972 and 1980?

Changes in student body characteristics, including absenteeism and dropout rates and the percentage of college-bound students; in staff characteristics; in educational programs; and in students' evaluations of their school experiences are presented by four of the major classification variables in Chapter IV.

c. How much did tested achievement and school grades change between 1972-1980?

In Chapter V, summary statistics for the mean test score changes are presented in IRT scaled units and in effect size scaled units. Information on self-reported grades is also included.

d. How much did behaviors, attitudes, etc., change for various groups of students and schools?

Changes in homework, extracurricular activities, attitudes toward school, educational and occupational aspirations, self-esteem, and life/work goals are presented in Chapter VI using the seven major classification variables. When the dependent variables are on a quantitative scale, means and standard deviations are presented. Scaled effect sizes are presented where there is a comparison of two means. When the data is nominal, tables show cell, row, and column marginal percentages and frequencies.

2. Relational Analysis

One major concern of the relational analysis is to determine the extent that changes in test scores are related to changes in population composition. When interpreting the difference between distributions of the same outcome for two populations, demographers and social scientists must be very cautious to recognize structural differences in the populations that might partly or wholly explain the observed differences (Das Gupta, 1978). Researchers can begin to postulate external causes for the observed change only if there are no shifts in population characteristics or if the effects of those shifts can be accounted for.

The first question the relational analysis of test scores addresses is: What are the relatively manipulable and non-manipulable individual background and family, school, and community characteristics that are related to each of the achievement test scores within each population? These explanatory variables were selected from the list of items common to the 1972 to 1980 Student and School questionnaires. Secondly, the shift in the distribution of each variable common to both 1972 and 1980 is examined since the degree to which a particular variable may contribute to a change in the mean score for the general population depends on both the change in mean score for the members of a particular category and on the extent to which the relative size of the category may have changed from 1972 to 1980.

Two techniques were used to partition the test score decline. The first technique describes the extent of the relationship between selected population and behavioral shifts to score decline. This type of analysis provides considerable detail about how classifying an individual on one or two variables at a time relates to test score changes between 1972 and 1980. In addition, this methodology attempts to partition the total score change into that part that was due to population shifts in the classification variables and that part that was due to mean changes within the classification groupings.

This partitioning procedure, however, does not lend itself to evaluating the impact of any one given classification variable or set of classification variables on score changes while controlling for the effects of numerous confounding variables. The second procedure that was used attempts to look at the relative impact of selected blocks of variables on the 1972-1980 mean score changes both before and after controlling for other confounding blocks of variables. The four blocks of variables are (1) demographics (e.g., race/ethnicity, sex); (2) student behavior and attitudes; (3) school characteristics; and (4) home educational support systems (e.g., parental influences, parental education, etc.). This partitioning procedure uses a "step down" analysis of variables that form a block while controlling for the remaining blocks. A second step in this step down ANCOVA is the identification of the variables in each block that contribute the most to that particular block's net effect on mean score change.

In a sense this method takes the multiplicity of findings from the first method and sorts them into logical sets or blocks and summarizes their net impact on mean test score change.

The above two methods are primarily exploratory and descriptive in nature. The third and final method contrasts path analysis models for the 1972 and 1980 cohorts separately in an effort to shed light on what changes in processes might have occurred to account for both the overall and, as well, differential score decline.

CHAPTER III

THE SAMPLES AND BACKGROUND CHANGES

This chapter describes the 1972 and 1980 samples and how the background characteristics of students in these samples changed between 1972 and 1980.

A. THE SAMPLE

Table 3-1 shows the size of the 1972 and 1980 student samples. Both the actual number of cases and the weighted estimate of the population size (N), used for generalizing to national samples, are presented. Also shown here, but not included in other tables, is the number of cases for which information on one or more classification variables is missing. Definitions of the classification codings are presented in Appendix B.

In both years, students were selected through a two-stage probability sample, with schools as the first stage units and students within schools as the second stage units. With the exception of special strata, schools were selected with probability proportional to estimated enrollment, and within each school, seniors were randomly selected.

The NLS-72 sample design called for the selection of a deeply stratified national probability sample of 1,200 public and private high schools and the selection of simple random samples of 18 seniors, where possible, and one or two counselors from each school. Schools in low income areas or with high percentages of minority-group students were over-sampled. Students from backup or substitute schools were also included in the study, resulting in a final sample of 1,318 schools.

The 1980 High School and Beyond study design called for a highly stratified national probability sample of 1,122 high schools with 36 seniors and 36 sophomores per school. (In those schools with fewer than 36 seniors or sophomores all eligible students were included in the sample.) Over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the nation participated in the base-year survey. Once again over-sampling was done for special strata schools including schools that were predominately Hispanic, Catholic schools that had substantial Black enrollments, alternative schools, high performance private schools, and other non-Catholic private schools.

Detailed information about the 1972 sample can be found in the NLS Data File User's Manual (Levinson, Henderson, Ricaobono, & Moore, 1978). Detailed information about the 1980 sample can be found in the High School and Beyond Sample Design Report (Frankel, 1981).

Although the NLS-72 and HS&B sample designs specified that students in all but the special strata would be selected with approximately equal probabilities, the probabilities are only approximately equal. The sample as realized did not equal the sample as drawn, creating further deviations from a self-weighting sample. Weights were introduced for schools and for students, giving each school or each student a weight equal to the number of schools or students in the universe of schools or students which that school or student represents.

B. CHANGES IN STUDENT CHARACTERISTICS

As Table 3-1 shows, the population estimate of the number of high school seniors was virtually the same in 1972 and 1980. But the composition of the senior group changed considerably. In 1972 high school seniors were about evenly divided between males and females. Estimates from the 1980 HS&B sample showed males constituting 48.1 percent of all high school seniors and females 51.9 percent of all seniors. These proportions do not include about five percent of the students who did not report their gender. Further analysis enabled us to estimate that this group was approximately 60 percent male. Readjustments using this information would indicate that the 1980 seniors were 48.6 percent male and 51.4 percent female. Smaller declines in the proportion of male high school seniors have been reported elsewhere. For example, NCES data on high school graduates shows that males were 49.4 percent of 1972 graduates and 49.0 percent of 1980 graduates (The Condition of Education, 1984).

Because of the way individuals were classified into SES groups, no interpretation of shifts in SES group membership will be made.

Racial/ethnic composition also changed. White students declined from an estimated 85.8 percent of 1972 seniors to 79.9 percent of 1980 seniors. Black high school seniors increased from an estimated 8.7 percent in 1972 to 11.6 percent in 1980. Hispanics, including Mexican-Americans, Puerto Ricans, and other Hispanics, increased from an estimated 3.5 percent of 1972 seniors to 6.5 percent of 1980 seniors. There was also a slight increase in the estimated proportion of Asian-American students (from 0.9 percent to 1.3 percent). The estimated proportion of American Indian students declined from 1.1 percent to 0.7 percent. All these population estimates are, of course, subject to sampling and non-sampling errors.

There were also major changes between 1972 and 1980 in the curriculum tracks in which seniors were enrolled. The estimated proportion of seniors enrolled in the academic curriculum decreased from 45.7 percent in 1972 to 38.1 percent in 1980. Estimated enrollments in the general curriculum increased from 31.8 percent of the 1972 seniors to 37.2 percent of the 1980 seniors. There was also a slight increase in the estimated proportion of students in the vocational curriculum (from 22.5 percent in 1972 to 24.7 percent in 1980).

A slightly smaller proportion of 1980 seniors (90.0 percent) than 1972 seniors (91.5 percent) was enrolled in public schools. The estimate of the proportion enrolled in Catholic schools declined from 7.9 percent in 1972 to 6.6 percent in 1980 while the estimated proportion of all

TABLE 3-1

NUMBER OF CASES

	NLS 1972			HSB 1980		
	SAMPLE N	WEIGHTED N	%	SAMPLE N	WEIGHTED N	%
TOTAL	16683	3043598		28240	3040928	
SEX						
Male	8281	1517010	49.9	12907	1400722	48.1
Female	8397	1525571	50.1	14086	1512417	51.9
No Data	5	1017		1247	127789	
SES						
Low	4827	741612	24.5	8409	811768	27.4
Middle	7927	1554775	51.3	12801	1423448	48.1
High	3863	735728	24.2	6180	723528	24.5
No Data	66	11483		850	82184	
RACE/ETHNICITY						
White	12847	2527200	85.8	19852	2364647	79.9
Black	2127	256777	8.7	3775	344397	11.6
Asian-American	193	27740	.9	365	39373	1.3
American Indian	189	31400	1.1	217	22254	.7
Mexican-American	558	73285	2.5	1893	102170	3.5
Puerto Rican	96	9764	.3	308	18169	.6
Other Hispanic	122	18844	.7	976	67166	2.4
No Data	551	98589		854	82753	
SCHOOL TYPE						
Public	14957	2701422	91.5	24678	2736069	90.0
Private	67	16549	.6	875	104730	3.4
Catholic	1027	235795	7.9	2687	200129	6.6
No Data	632	89832		0	0	
GEOGRAPHIC REGION						
Northeast	3618	804775	26.4	5689	696768	22.9
North Central	4568	917658	30.2	8102	869669	28.6
South	5513	796009	26.2	9309	924433	30.4
West	2984	525157	17.2	5140	550057	18.1
No Data	0	0		0	0	
CURRICULUM						
General	5673	968623	31.8	10293	1112603	37.2
Academic	6812	1391944	45.7	10532	1138492	38.1
Vocational	4197	682728	22.5	6959	740965	24.7
No Data	1	303		456	48867	
COMMUNITY TYPE						
Urban	4563	787529	26.5	6524	610511	20.1
Suburban	7965	1540863	51.9	13580	1502435	49.4
Rural	3684	639947	21.6	8136	927981	30.5
No Data	471	75260		0	0	

seniors enrolled in private schools increased from 0.6 percent in 1972 to 3.4 percent in 1980.

National shifts in population are also evident in these data. The estimated proportion of all high school seniors from the Northeastern and North Central regions declined while the estimated proportion from the South and the West increased.

There were also shifts in the type of community from which the seniors came. In 1972, it was estimated that 26.5 percent of the seniors came from urban communities, 51.9 percent from suburban communities, and 21.6 percent from rural communities. By 1980, it was estimated that 20.1 percent of the seniors were from urban communities, 49.4 percent from suburban communities, and 30.5 percent from rural communities.

In sum, the 1980 high school seniors were more likely to be female, members of a minority group, enrolled in a nonacademic curriculum, enrolled in a non-Catholic private school, from the South or West, and from a rural area than were the 1972 seniors. These shifts in the nature of the high school population have important consequences for achievement and for attitudes and values, as will be seen in Chapters V and VI.

C. CHANGES IN STUDENTS' FAMILY BACKGROUND

In this section we describe changes in parental occupation, in parental education, and in educational influences in the students' homes.

There is relatively little difference between the occupation of fathers of the 1972 and the 1980 seniors (Table 3-2). The major changes are a decline of 2.3 percentage points in fathers employed in craft occupations, an increase of 1.9 percentage points in fathers who are proprietors, and an increase of 1.3 percentage points in fathers holding managerial positions.

The apparent changes in mothers' employment are, unfortunately, a confounding of the actual increase in women's participation in paid work, which took place during this period, and a change of phrasing in the parental occupation question in 1972 and in 1980. In the later year, the student was asked to indicate the parents' "most recent occupation." Therefore these figures for mother's occupation in 1980 may be either her current occupation or her occupation whenever she last held a paid job. There was a decline, from 55.2 percent in 1972 to 15.1 percent in 1980, in the proportion of seniors' mothers whose occupation was homemaker. The increases for employment of mothers were primarily in clerical occupations (up from 16.2 percent in 1972 to 26.8 percent in 1980), professional occupations (up from 9.0 percent to 18.0 percent), and service occupations (up from 5.6 percent to 11.9 percent). The decline in the percentage of students reporting homemaker as their mother's occupation was consistent across SES and racial/ethnic groups. The type of occupation pursued, however, varied across these classifications very

TABLE 3-2

Parental Occupation: 1972 and 1980 Total Group

	Cler.	Craft	Farm	Home	Labor	Mgmt.	Military	Oper.	Prof.	Prop.	Protec.	Sales	Service	Tech.
Fathers														
1972	2.9	18.2	5.1	0.2	11.0	13.7	2.6	11.8	14.0	6.9	2.6	6.0	2.1	3.0
1980	2.3	15.9	4.8	0.2	9.6	14.0	2.4	11.9	15.3	8.8	2.7	5.4	2.1	4.5
Mothers														
1972	16.2	0.7	1.0	55.2	1.3	1.7	0.2	3.2	9.0	1.2	0.3	3.6	5.6	0.7
1980	26.8	2.1	0.7	15.1	3.0	5.4	0.1	6.1	18.0	2.3	0.3	6.5	11.9	1.7

predictably. For example, the largest proportion of low SES mothers was employed in service occupations, while the middle SES mothers predominated in clerical occupations, and high SES mothers in professional occupations.

Parental education was measured on a scale ranging from 1 = less than high school education to 5 = graduate or professional school. The mean for father's education (see Table 3-3) rose from 2.32 in 1972 to 2.62 in 1980. This mean education level indicates that the typical father had completed high school. This increase is significant for the total group and for all classification groups, except Puerto Ricans and Other Hispanics. Mother's education (see Table 3-4) increased from a mean of 2.19 in 1972 to 2.41 in 1980. This increase is also significant. These increases parallel national trends for increasingly higher levels of education in successive age cohorts. The slightly lower level of education for mothers than for fathers is also keeping with national data for adults.

To obtain a sense of the home support for learning, the students were asked to indicate whether or not certain study aids (a specific place to study, daily newspaper, encyclopedia/reference books, and typewriter) were available in their homes. The scale used in Table 3-5 ranges from 0 = have none of these, to 4 = have all of these. In 1972 the mean number of study aids in the seniors' homes was 3.21, indicating that the average senior had most of these aids. By 1980, however, the average number of study aids declined to 2.97, a significant change. This decline was similar for most of the classification groups.

As another indicator of home support for students' learning and home influence on students' educational aspirations, the students were asked to indicate the amount of schooling that their mother or female guardian wanted them to obtain. (See Table 3-6.) The scale ranges from 1 = less than high school to 5 = graduate or professional school. Using this scale, the mean level of education which the mothers wanted for the 1972 seniors was 3.63; for the 1980 seniors it was 3.73. This increase is significant. This change in parental educational aspirations for the students differs considerably, however, for males and for females. The 1972-1980 increase is significant for females but not for males. Thus, the differential parental educational aspirations for sons and daughters, evident in 1972, had all but disappeared in 1980. Mothers' educational aspirations for their children increased more for high SES students than for low SES students, thus increasing the gap in parental aspirations for high and low SES students. Mothers' educational aspirations for their children increased significantly between 1972 and 1980 for White, Black, Asian-American, and American Indian seniors but did not increase significantly for Hispanic students.

These data present a mixed picture of 1972-1980 changes in home pressure for student school achievement. Although parents provided fewer study aids for 1980 seniors than they did for 1972 seniors, more 1980 parents were, at the same time, providing their children with higher educational expectations, in terms of the amount of schooling to be

TABLE 3-3

HIGHEST EDUCATIONAL LEVEL COMPLETED BY YOUR FATHER OR MALE GUARDIAN (1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14054	2629005	2.32	1.2	21608	2370359	2.62	1.3	1.26	0.30 *	0.24
SEX:											
MALE	6877	1291318	2.35	1.2	10110	1112665	2.68	1.3	1.27	0.34 *	0.27
FEMALE	7173	1336921	2.28	1.2	10778	1181524	2.57	1.3	1.25	0.29 *	0.23
SES:											
LOW	3578	574854	1.28	0.5	5702	558598	1.45	0.6	0.59	0.17 *	0.28
MIDDLE	6862	1366160	2.03	0.8	10443	1170251	2.36	0.9	0.84	0.34 *	0.40
HIGH	3614	687991	3.75	1.1	5447	639985	4.10	0.9	0.97	0.35 *	0.36
RACE:											
WHITE	11517	2279983	2.39	1.2	16352	1950751	2.70	1.3	1.26	0.31 *	0.25
BLACK	1348	165948	1.70	0.9	2072	190346	2.12	1.2	1.08	0.42 *	0.39
ASIAN-AMERICAN	166	24107	2.43	1.3	294	32805	3.03	1.4	1.35	0.60 *	0.44
AMERICAN INDIAN	130	21843	1.91	1.1	155	16148	2.47	1.3	1.18	0.56 *	0.47
MEXICAN-AMERICAN	376	50539	1.51	0.8	1364	74343	1.89	1.1	1.07	0.37 *	0.35
PUERTO RICAN	60	6135	1.51	0.8	181	10757	1.74	1.1	1.04	0.24	0.23
OTHER HISPANIC	90	14057	2.26	1.4	716	48101	2.35	1.3	1.27	0.09	0.07
SCHOOL TYPE:											
PUBLIC	12556	2324125	2.31	1.2	18682	2110602	2.55	1.3	1.25	0.24 *	0.19
PRIVATE	64	15791	2.75	1.4	751	88385	3.49	1.4	1.37	0.74 *	0.54
CATHOLIC	948	219353	2.44	1.2	2175	171371	2.95	1.3	1.25	0.51 *	0.41
GEOGRAPHIC REGION:											
NORTHEAST	3113	708085	2.33	1.2	4346	551147	2.72	1.3	1.26	0.39 *	0.31
NORTH CENTRAL	3968	809038	2.27	1.2	6496	710145	2.55	1.2	1.22	0.29 *	0.24
SOUTH	4488	662161	2.23	1.3	6889	689501	2.46	1.3	1.26	0.23 *	0.18
WEST	2485	449721	2.50	1.3	3877	419566	2.84	1.3	1.29	0.34 *	0.27
CURRICULUM:											
GENERAL	4624	805320	2.12	1.2	7638	838631	2.41	1.2	1.18	0.30 *	0.25
ACADEMIC	6205	1282026	2.63	1.3	8760	962327	3.07	1.3	1.29	0.44 *	0.34
VOCATIONAL	3224	541357	1.86	1.0	4965	541292	2.14	1.1	1.04	0.28 *	0.27
COMMUNITY TYPE:											
URBAN	3794	672791	2.32	1.2	4435	426655	2.56	1.3	1.25	0.24 *	0.19
SUBURBAN	6957	1370669	2.48	1.3	10740	1199936	2.80	1.3	1.29	0.33 *	0.25
RURAL	3105	550568	1.91	1.0	6433	743769	2.35	1.2	1.15	0.45 *	0.39

*SIGNIFICANT AT .05 OR LESS

TABLE 3-4

HIGHEST EDUCATIONAL LEVEL COMPLETED BY YOUR MOTHER OR FEMALE GUARDIAN
(1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14374	2678867	2.19	1.0	24188	2631211	2.41	1.0	1.03	0.22 *	0.21
SEX:											
MALE	7004	1314944	2.23	1.0	10951	1197447	2.46	1.0	1.03	0.23 *	0.22
FEMALE	7366	1363158	2.15	1.0	12370	1342256	2.37	1.0	1.04	0.23 *	0.22
SES:											
LOW	3754	596172	1.37	0.5	6955	677347	1.57	0.6	0.60	0.20 *	0.33
MIDDLE	6964	1386492	2.03	0.7	11530	1287377	2.31	0.8	0.74	0.28 *	0.37
HIGH	3653	695946	3.19	1.0	5627	658547	3.45	1.0	1.01	0.26 *	0.26
RACE:											
WHITE	11681	2309666	2.24	1.0	17709	2109124	2.46	1.0	1.02	0.22 *	0.22
BLACK	1459	179597	1.86	1.0	2920	266891	2.24	1.1	1.05	0.38 *	0.36
ASIAN-AMERICAN	167	24099	2.25	1.1	293	32156	2.70	1.2	1.16	0.45 *	0.39
AMERICAN INDIAN	139	22906	1.77	0.9	173	17744	2.30	1.1	1.04	0.52 *	0.50
MEXICAN-AMERICAN	402	54034	1.42	0.7	1502	81619	1.78	0.9	0.88	0.36 *	0.41
PUERTO RICAN	63	6421	1.56	0.9	241	14240	1.69	0.8	0.85	0.14	0.16
OTHER HISPANIC	84	13382	2.04	1.0	805	54739	2.19	1.0	1.03	0.16	0.15
SCHOOL TYPE:											
PUBLIC	12848	2371440	2.18	1.0	21013	2359113	2.37	1.0	1.02	0.18 *	0.18
PRIVATE	63	15105	2.42	1.2	792	91288	3.07	1.2	1.19	0.65 *	0.55
CATHOLIC	953	219202	2.30	1.0	2383	180810	2.59	1.0	1.03	0.29 *	0.28
GEOGRAPHIC REGION:											
NORTHEAST	3182	722571	2.19	1.0	4891	604693	2.45	1.1	1.04	0.26 *	0.25
NORTH CENTRAL	4036	820416	2.19	1.0	7114	770565	2.40	1.0	0.99	0.21 *	0.21
SOUTH	4622	678145	2.10	1.0	7851	788613	2.29	1.1	1.05	0.19 *	0.18
WEST	2534	457736	2.30	1.0	4332	467339	2.57	1.1	1.05	0.27 *	0.25
CURRICULUM:											
GENERAL	4747	823315	2.03	1.0	8639	944018	2.27	1.0	0.97	0.24 *	0.25
ACADEMIC	6308	1299971	2.43	1.1	9566	1039352	2.74	1.1	1.08	0.30 *	0.28
VOCATIONAL	3318	555279	1.85	0.9	5696	614860	2.08	0.9	0.89	0.24 *	0.27
COMMUNITY TYPE:											
URBAN	3903	687569	2.15	1.0	5321	506744	2.34	1.0	1.02	0.19 *	0.18
SUBURBAN	7082	1394279	2.28	1.0	11816	1314401	2.51	1.1	1.05	0.22 *	0.21
RURAL	3182	561393	1.99	1.0	7051	810066	2.29	1.0	0.99	0.30 *	0.30

*SIGNIFICANT AT .05 OR LESS

TABLE 3-5

NUMBER OF "STUDY AIDS" AVAILABLE IN HOME
(COUNT OF RESPONSES TO: PLACE FOR STUDY; DAILY NEWSPAPER; ENCYCLOPEDIA/REFERENCE BOOKS; TYPEWRITER)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16412	3002567	3.21	0.9	26191	2830358	2.97	1.0	0.94	-0.23 *	-0.25
SEX:											
MALE	8096	1487778	3.19	0.9	12376	1343612	3.01	1.0	0.96	-0.19 *	-0.20
FEMALE	8312	1514024	3.22	0.9	13728	1478552	2.94	0.9	0.92	-0.28 *	-0.30
SES:											
LOW	4717	727933	2.54	1.1	7720	742694	2.29	1.1	1.06	-0.24 *	-0.23
MIDDLE	7829	1539145	3.31	0.8	12170	1357352	3.10	0.8	0.80	-0.22 *	-0.27
HIGH	3832	729451	3.64	0.6	5934	694330	3.47	0.7	0.62	-0.18 *	-0.29
RACE:											
WHITE	12729	2506111	3.28	0.9	19000	2261452	3.03	0.9	0.89	-0.25 *	-0.28
BLACK	2046	247777	2.75	1.1	3229	293820	2.71	1.1	1.07	-0.03	-0.03
ASIAN-AMERICAN	192	27663	3.33	0.8	349	38092	3.05	1.0	0.97	-0.28 *	-0.29
AMERICAN INDIAN	185	30932	2.99	1.0	198	20286	2.66	1.1	1.07	-0.33	-0.31
MEXICAN-AMERICAN	541	71223	2.60	1.2	1741	93325	2.65	1.0	1.07	0.05	0.05
PUERTO RICAN	91	9196	2.48	1.2	284	16362	2.51	1.2	1.25	0.03	0.02
OTHER HISPANIC	114	17540	2.88	1.1	889	58928	2.74	1.1	1.08	-0.14	-0.13
SCHOOL TYPE:											
PUBLIC	14708	2663708	3.19	0.9	22802	2537784	2.93	1.0	0.95	-0.25 *	-0.26
PRIVATE	66	16256	3.53	0.7	847	101094	3.28	0.8	0.82	-0.25	-0.30
CATHOLIC	1022	234707	3.46	0.7	2542	191480	3.29	0.7	0.73	-0.17 *	-0.23
GEOGRAPHIC REGION:											
NORTHEAST	3552	793263	3.38	0.8	5399	663197	3.11	0.9	0.85	-0.27 *	-0.32
NORTH CENTRAL	4514	908789	3.19	0.9	7481	810034	3.01	0.9	0.90	-0.19 *	-0.21
SOUTH	5424	783599	3.05	1.0	8481	837239	2.84	1.0	1.02	-0.22 *	-0.21
WEST	2922	516916	3.19	0.9	4830	519888	2.96	1.0	0.97	-0.23 *	-0.24
CURRICULUM:											
GENERAL	5564	951961	3.04	1.0	9485	1026439	2.85	1.0	0.99	-0.19 *	-0.20
ACADEMIC	6735	1378439	3.39	0.8	10089	1093825	3.21	0.8	0.81	-0.18 *	-0.23
VOCATIONAL	4112	671864	3.05	1.0	6254	670666	2.79	1.0	1.00	-0.26 *	-0.26
COMMUNITY TYPE:											
URBAN	4541	784249	3.22	0.9	5926	557297	2.99	1.0	0.93	-0.23 *	-0.25
SUBURBAN	7932	1534602	3.30	0.8	12678	1402331	3.04	0.9	0.90	-0.25 *	-0.28
RURAL	3661	636609	2.97	1.0	7587	870731	2.84	1.0	1.01	-0.13 *	-0.13

*SIGNIFICANT AT .05 OR LESS

TABLE 3-6

HOW MUCH SCHOOLING DOES YOUR MOTHER OR FEMALE GUARDIAN WANT YOU TO GET
(1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	13294	2455320	3.63	0.8	22225	2399707	3.73	1.0	0.91	0.11 *	0.12
SEX:											
MALE	6425	1198604	3.75	0.8	10315	1116278	3.76	1.0	0.92	0.01	0.01
FEMALE	6866	1256192	3.51	0.8	11485	1239390	3.72	0.9	0.89	0.21 *	0.23
SES:											
LOW	3544	547247	3.29	0.8	6236	599167	3.37	1.0	0.96	0.08 *	0.08
MIDDLE	6366	1261711	3.55	0.8	10334	1147887	3.67	0.9	0.87	0.11 *	0.13
HIGH	3371	643907	4.06	0.7	5310	619924	4.22	0.7	0.72	0.16 *	0.22
RACE:											
WHITE	10632	2097629	3.63	0.8	16002	1903285	3.70	0.9	0.89	0.07 *	0.08
BLACK	1484	179449	3.72	0.8	2826	258978	3.96	1.0	0.93	0.25 *	0.27
ASIAN-AMERICAN	156	22408	4.02	0.8	312	33585	4.29	0.8	0.80	0.27 *	0.34
AMERICAN INDIAN	132	22150	3.20	0.9	160	16739	3.74	1.0	0.96	0.54 *	0.56
MEXICAN-AMERICAN	406	53819	3.52	0.8	1445	76815	3.58	1.0	0.97	0.06	0.06
PUERTO RICAN	67	6739	3.63	0.8	240	13131	3.66	0.9	0.91	0.03	0.03
OTHER HISPANIC	85	13429	3.51	0.9	762	50679	3.70	1.1	1.05	0.19	0.18
SCHOOL TYPE:											
PUBLIC	11904	2174121	3.61	0.8	19253	2150435	3.70	1.0	0.91	0.08 *	0.09
PRIVATE	60	14404	3.75	0.7	739	83161	4.12	0.8	0.83	0.37 *	0.44
CATHOLIC	872	201309	3.77	0.8	2233	166110	3.98	0.9	0.84	0.20 *	0.24
GEOGRAPHIC REGION:											
NORTHEAST	2911	655534	3.63	0.8	4532	557622	3.77	1.0	0.93	0.14 *	0.15
NORTH CENTRAL	3654	740465	3.57	0.8	6415	693494	3.61	0.9	0.89	0.04	0.05
SOUTH	4395	642139	3.67	0.8	7321	723915	3.77	1.0	0.92	0.10 *	0.11
WEST	2334	417182	3.66	0.8	3957	424676	3.82	0.9	0.87	0.16 *	0.19
CURRICULUM:											
GENERAL	4356	746427	3.39	0.8	7815	847685	3.55	1.0	0.90	0.15 *	0.17
ACADEMIC	5914	1212548	4.00	0.7	8978	971095	4.17	0.8	0.75	0.17 *	0.23
VOCATIONAL	3023	496042	3.08	0.7	5153	549800	3.26	0.9	0.85	0.19 *	0.22
COMMUNITY TYPE:											
URBAN	3644	636392	3.69	0.8	5003	471608	3.85	1.0	0.90	0.16 *	0.18
SUBURBAN	6563	1280168	3.69	0.8	10807	1195851	3.79	1.0	0.90	0.10 *	0.11
RURAL	2906	508396	3.40	0.8	6415	732248	3.57	1.0	0.91	0.16 *	0.18

*SIGNIFICANT AT .05 OR LESS

obtained. These changing parental expectations for the 1972 and 1980 seniors' educations were differential, however, affecting females much more than males, high SES students more than low SES students, and non-Hispanic minority students more than White or Hispanic students.

CHAPTER IV

THE SCHOOLS, EDUCATIONAL PROGRAMS, AND LEARNING CONDITIONS

This chapter describes how schools, educational programs, and learning conditions changed between 1972 and 1980. Four areas are examined: 1) student body characteristics, 2) staff characteristics, 3) educational programs and teaching methods, and 4) students' evaluations of school facilities and their educational experiences. Data on student and staff characteristics and educational programs are drawn from the school questionnaires; those on teaching methods and student evaluation come from the student questionnaire. Schools are grouped by four classification variables: 1) average SES of their students, 2) school type, 3) geographic region, and 4) community type.

A. STUDENT BODY CHARACTERISTICS

Students' achievement, attitudes and behaviors are influenced by the environment of the schools they attend as well as by their personal backgrounds. The 1972 and 1980 school questionnaires contain five measures of student body composition: 1) racial/ethnic composition, 2) student absenteeism and dropout rates, 3) percentage of college-bound students, 4) percentage of students in the academic track, and 5) the percentage of students classified as disadvantaged or handicapped.

1. Racial/Ethnic Composition

Table 4-1 shows the percentage of schools that were predominately White, predominately non-White, and integrated in 1972 and 1980. In 1972, 52.8 percent of the schools were 95 to 100 percent White, 36.3 percent were 50 to 94 percent White, while 10.9 percent were less than 50 percent White. In 1980, the percentages were 53.5, 35.0 and 11.5, respectively. These figures vary widely when schools are grouped by student SES, school type, geographic region and community type, however. For example, in 1972, 22.7 percent of the schools that had a low SES student body were predominately non-White compared to 6.8 percent and 1.5 percent for medium and high SES schools. A larger percentage of schools in the South and in urban communities also were non-White. The percentage of predominately minority schools and predominately White schools remained unchanged, in general, between 1972 and 1980. Catholic schools provide the exception to this statement. The percentage of Catholic schools that were 50 to 94 percent White nearly doubled between 1972 and 1980, from 33.5 percent to 57.7 percent, while the percentage that were predominately White dropped from 59.9 percent to 35.7 percent.

Tables 4-2 and 4-3 show the percentage of schools that have varying concentrations of Black and Hispanic students. Between 1972 and 1980, the percentage of schools that were majority Black increased slightly, while the percentage with enrollments that were only 0 to 4 percent Black

TABLE 4-1

PERCENT OF CURRENT STUDENTS WHO ARE WHITE

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-49%	% WITH 50-79%	% WITH 80-94%	% WITH 95-100%	NUMBER OF SCHOOLS	% WITH 0-49%	% WITH 50-79%	% WITH 80-94%	% WITH 95-100%
TOTAL	1237	10.9	14.5	21.8	52.8	959	11.5	15.2	19.8	53.5
AVERAGE SES OF STUDENTS:										
LOW	306	22.7	24.4	22.0	30.9	225	38.0	11.5	13.7	36.9
MIDDLE	613	6.8	11.1	17.2	64.8	472	3.6	20.0	16.3	60.1
HIGH	318	1.5	6.6	33.8	58.1	239	1.2	9.2	33.1	56.5
SCHOOL TYPE:										
PUBLIC	1109	11.4	15.6	20.5	52.5	841	12.6	15.9	18.4	53.1
PRIVATE	11	0.0	2.4	46.8	50.7	37	8.7	6.3	20.4	64.6
CATHOLIC	71	6.6	10.8	22.7	59.9	81	6.7	24.8	32.9	35.7
GEOGRAPHIC REGION:										
NORTHEAST	252	4.4	6.0	18.9	70.6	205	5.8	10.9	24.2	59.1
NORTH CENTRAL	321	5.8	3.1	15.6	75.5	270	3.3	4.1	12.1	80.5
SOUTH	460	20.4	21.6	29.6	28.4	290	20.1	27.1	20.4	32.4
WEST	204	8.4	32.8	20.5	38.2	194	14.2	15.2	26.5	44.1
COMMUNITY TYPE:										
URBAN	376	24.4	20.2	25.0	30.4	242	26.9	20.2	21.9	30.9
SUBURBAN	617	7.5	13.3	27.1	52.1	462	6.2	16.6	27.9	49.3
RURAL	237	9.7	13.9	16.0	60.4	255	9.8	12.2	12.9	65.1

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-2

PERCENT OF CURRENT STUDENTS WHO ARE BLACK

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-19%	% WITH 20-49%	% WITH 50-100%	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-19%	% WITH 20-49%	% WITH 50-100%
TOTAL	1237	68.0	15.8	9.6	6.6	958	68.4	14.2	9.8	7.7
AVERAGE SES OF STUDENTS:										
LOW	306	47.3	21.6	14.8	16.3	225	54.8	8.6	10.4	26.2
MIDDLE	613	76.5	12.6	8.3	2.6	472	72.5	13.5	12.7	1.4
HIGH	318	81.0	14.5	4.2	0.3	238	72.9	23.2	3.4	0.5
SCHOOL TYPE:										
PUBLIC	1109	66.5	16.4	10.3	6.8	840	67.4	13.0	11.0	8.6
PRIVATE	11	92.0	8.0	0.0	0.0	37	77.1	12.5	5.2	5.2
CATHOLIC	71	78.4	12.7	6.7	2.3	81	60.7	29.6	6.4	3.3
GEOGRAPHIC REGION:										
NORTHEAST	252	78.4	13.8	4.6	3.1	205	67.2	19.8	9.8	3.2
NORTH CENTRAL	321	84.6	10.6	2.2	2.6	270	87.6	7.1	2.5	2.8
SOUTH	460	37.0	25.4	22.8	14.8	289	46.6	18.6	18.9	15.9
WEST	204	89.1	7.8	2.2	1.0	194	77.6	12.6	5.2	4.7
COMMUNITY TYPE:										
URBAN	376	43.9	21.9	18.3	15.9	242	44.9	19.3	17.8	18.0
SUBURBAN	617	67.0	18.7	9.9	4.4	461	65.8	20.8	9.5	3.9
RURAL	237	76.5	11.3	6.7	5.5	255	79.0	7.3	7.0	6.7

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-3

PERCENT OF CURRENT STUDENTS WHO ARE HISPANIC

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-19%	% WITH 20-49%	% WITH 50-100%	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-19%	% WITH 20-49%	% WITH 50-100%
TOTAL	1237	87.0	9.1	2.7	1.3	959	81.8	11.8	4.0	2.4
AVERAGE SES OF STUDENTS:										
LOW	306	88.2	5.6	3.2	3.0	227	74.8	11.6	6.4	7.2
MIDDLE	613	88.0	8.7	2.8	0.5	471	85.5	9.3	3.8	1.4
HIGH	318	81.9	16.4	1.5	0.2	239	84.4	12.5	2.6	0.5
SCHOOL TYPE:										
PUBLIC	1109	87.4	8.5	2.7	1.4	841	83.6	10.2	4.0	2.2
PRIVATE	11	90.6	9.4	0.0	0.0	37	79.7	16.7	0.0	3.5
CATHOLIC	71	81.7	13.7	4.3	0.4	81	68.0	18.3	11.1	2.6
GEOGRAPHIC REGION:										
NORTHEAST	252	89.7	8.8	1.5	0.1	205	88.0	7.9	2.9	1.2
NORTH CENTRAL	321	97.7	2.1	0.1	0.1	267	94.8	3.6	1.6	0.0
SOUTH	460	88.6	8.2	1.4	1.8	292	83.6	9.9	4.1	2.4
WEST	204	58.6	25.4	12.2	3.8	195	54.4	30.5	8.1	7.0
COMMUNITY TYPE:										
URBAN	376	78.6	14.5	4.5	2.4	241	63.8	24.9	5.6	5.7
SUBURBAN	617	84.8	10.7	3.6	1.0	460	80.9	12.8	4.6	1.6
RURAL	237	91.6	5.8	1.4	1.2	258	89.1	6.2	2.9	1.7

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

remained constant (with the exception of Catholic schools and schools in the Northeast and West). The percentage of schools that were predominately Hispanic increased during this period across every classification variable except in the North Central region. Once again, the Catholic schools appeared to have absorbed Hispanic students to a greater extent than non-Catholic schools. The percentage of Catholic schools with more than 5 percent Hispanic enrollment grew from 18.3 percent to 32.0 percent.

2. Student Absenteeism and Dropout Rates

In Table 4-4, schools are grouped by approximate average daily attendance rates. Between 1972 and 1980, the percentage of schools with low absenteeism (attendance rates of 96 to 100 percent) showed a moderate decline, while those with high absenteeism (attendance rates of 0 to 84 percent) remained constant. This finding generally holds across all four classification variables. The sharpest decrease in the percentage of schools with low absenteeism rates occurred in urban areas, in Catholic schools, in the Northeast and North Central regions, and in low and middle SES schools.

Dropout rates are measured as the percent of students who entered the 10th grade but dropped out before graduation, as reported by the schools. Table 4-5 shows a general increase in dropouts. The percentage of schools with a dropout rate of 10 to 19 percent increased from 13.4 percent to 20.4 percent, and those with a rate of 20 percent or more grew from 3.6 percent to 9.6 percent. Increases in this latter category were most evident in the South and West, in the suburbs, among public schools, and in schools with a low SES student body. Middle SES and rural schools showed a large increase between 1972 and 1980 in the percentage of schools with a 5 to 19 percent dropout rate.

3. College-Bound Students

Changes in the concentration of college-bound students (both 2-year and 4-year) between 1972 and 1980 are shown in Table 4-6. During this period the percentage of schools with a preponderance (70 percent or more) of college-bound students increased from 9.3 percent to 18.8 percent. Large increases in the number of schools with high percentages of college-bound students took place in the nonpublic schools and among high SES schools. Students in middle SES schools, however, showed slightly less interest in college attendance.

4. High School Curriculum

Data in Chapter III showed that between 1972 and 1980 substantially more high school seniors chose to enroll in general education rather than academic/college preparatory programs. Table 4-7 shows the percentage of schools with different concentrations of students in the academic program in both of these years. There was growth in both the percentage of schools falling in the lowest (0 to 29 percent) and the highest (70 to

TABLE 4-4

APPROXIMATE AVERAGE DAILY PERCENTAGE ATTENDANCE

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 96-100%	% WITH 90-95%	% WITH 85-89%	% WITH 0-84%	NUMBER OF SCHOOLS	% WITH 96-100%	% WITH 90-95%	% WITH 85-89%	% WITH 0-84%
TOTAL	1251	22.5	57.2	14.6	5.7	958	17.1	67.5	9.6	5.8
AVERAGE SES OF STUDENTS:										
LOW	307	16.4	49.6	25.5	8.5	227	10.2	62.7	11.1	15.9
MIDDLE	621	24.7	63.2	9.3	2.8	471	17.9	71.0	8.7	2.4
HIGH	323	26.6	53.4	10.8	9.1	237	24.3	67.5	7.6	0.5
SCHOOL TYPE:										
PUBLIC	1120	18.5	60.3	14.9	6.3	840	14.9	69.3	9.3	6.5
PRIVATE	12	48.0	52.0	0.0	0.0	37	20.2	59.0	15.6	5.2
CATHOLIC	73	53.4	37.4	7.7	1.5	81	32.7	65.7	1.3	0.2
GEOGRAPHIC REGION:										
NORTHEAST	262	27.8	49.8	17.9	4.5	203	14.5	68.2	9.8	7.5
NORTH CENTRAL	321	31.9	59.6	5.7	2.8	274	23.3	67.9	4.4	4.4
SOUTH	459	13.4	67.1	14.0	5.5	293	15.0	72.0	10.5	2.6
WEST	209	16.8	41.0	28.8	13.4	188	13.1	58.7	16.2	11.9
COMMUNITY TYPE:										
URBAN	382	30.7	34.5	16.5	18.4	242	8.0	51.0	25.9	15.2
SUBURBAN	623	20.2	61.3	13.2	5.3	462	17.7	69.4	7.2	5.6
RURAL	239	21.5	61.7	15.0	1.8	254	20.1	72.1	5.4	2.4

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-5

PERCENT OF STUDENTS WHO ENTER THE 10TH GRADE BUT DROP OUT BEFORE GRADUATION

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-9%	% WITH 10-19%	% WITH 20-100%	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-9%	% WITH 10-19%	% WITH 20-100%
TOTAL	1192	62.2	20.8	13.4	3.6	956	46.5	23.5	20.4	9.6
AVERAGE SES OF STUDENTS:										
LOW	297	38.8	32.0	22.9	6.3	225	36.3	13.4	30.3	19.9
MIDDLE	592	71.9	15.1	9.8	3.1	477	40.8	28.3	22.3	8.6
HIGH	303	78.3	15.9	5.6	0.1	235	72.3	19.4	6.8	1.5
SCHOOL TYPE:										
PUBLIC	1063	58.2	23.3	15.0	3.6	839	36.4	26.1	25.4	12.1
PRIVATE	12	96.1	2.4	1.5	0.0	34	81.9	16.8	1.3	0.0
CATHOLIC	71	97.7	0.5	1.8	0.0	83	90.6	8.2	1.2	0.0
GEOGRAPHIC REGION:										
NORTHEAST	247	73.0	19.8	5.1	2.2	200	52.2	23.6	19.8	4.5
NORTH CENTRAL	312	78.8	10.8	8.1	2.3	271	49.3	27.4	19.2	4.0
SOUTH	440	46.6	21.4	26.4	5.5	299	42.9	19.3	24.0	13.7
WEST	193	49.6	40.9	5.7	3.8	186	43.2	24.5	16.0	16.2
COMMUNITY TYPE:										
URBAN	355	61.0	13.9	13.5	11.6	235	54.5	13.9	16.6	15.0
SUBURBAN	596	62.8	23.0	12.3	1.9	458	46.7	26.9	15.8	10.6
RURAL	234	61.8	21.2	14.4	2.6	263	43.8	24.1	24.9	7.1

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-6

PERCENT OF LAST YEAR'S GRADUATES NOW ENROLLED IN A REGULAR TWO-YEAR OR FOUR-YEAR COLLEGE

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%
TOTAL	1254	30.6	34.9	25.3	9.3	973	27.2	32.9	21.1	18.8
AVERAGE SES OF STUDENTS:										
LOW	310	58.1	30.9	9.7	1.4	232	54.3	30.5	12.8	2.3
MIDDLE	623	19.9	43.2	30.2	6.7	488	24.7	43.5	24.7	7.2
HIGH	321	11.4	19.0	39.3	30.4	240	4.4	8.4	20.7	66.5
SCHOOL TYPE:										
PUBLIC	1122	33.1	38.2	22.8	5.9	857	32.1	38.1	22.3	7.5
PRIVATE	12	0.0	15.5	55.2	29.3	33	13.1	12.4	12.8	61.6
CATHOLIC	73	9.4	18.1	38.3	34.2	83	0.0	12.5	21.6	65.9
GEOGRAPHIC REGION:										
NORTHEAST	262	20.1	34.3	27.3	18.3	208	15.9	29.3	23.2	31.7
NORTH CENTRAL	326	24.8	43.3	27.0	4.9	275	19.8	44.5	23.3	12.4
SOUTH	461	39.0	29.9	21.8	9.3	298	35.6	27.3	18.0	19.1
WEST	205	37.2	29.6	26.9	6.3	192	36.1	26.3	20.9	16.7
COMMUNITY TYPE:										
URBAN	381	21.8	29.5	29.3	19.4	241	20.8	26.1	14.5	38.6
SUBURBAN	625	17.7	36.9	31.7	13.6	469	23.0	31.1	22.1	23.8
RURAL	241	45.1	34.8	18.0	2.1	263	32.5	36.5	22.4	8.7

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-7

PERCENT ENROLLED IN ACADEMIC OR COLLEGE PREPARATORY CURRICULUM

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%
TOTAL	1196	37.3	32.2	17.8	12.7	892	40.9	21.7	16.5	21.0
AVERAGE SES OF STUDENTS:										
LOW	299	59.8	28.5	9.8	1.9	206	67.5	20.8	5.9	5.8
MIDDLE	596	30.6	39.0	18.5	12.0	441	44.8	26.7	18.5	10.0
HIGH	301	16.2	20.3	29.9	33.5	226	11.2	12.9	16.3	59.5
SCHOOL TYPE:										
PUBLIC	1070	41.1	34.6	16.5	7.8	778	49.7	26.6	15.5	8.3
PRIVATE	12	0.0	28.7	21.1	50.2	35	16.2	4.5	25.7	53.7
CATHOLIC	71	8.3	16.7	31.0	43.9	79	4.3	7.3	9.0	79.5
GEOGRAPHIC REGION:										
NORTHEAST	241	18.8	28.4	30.7	22.2	191	15.8	25.0	22.8	36.4
NORTH CENTRAL	316	32.2	39.1	21.7	7.1	250	45.7	25.6	15.7	13.0
SOUTH	443	43.1	32.4	10.4	14.1	275	49.4	19.1	8.0	23.5
WEST	196	57.7	23.0	10.1	9.2	176	39.9	16.9	28.0	15.1
COMMUNITY TYPE:										
URBAN	357	33.0	19.3	26.0	21.8	218	29.7	15.8	16.0	38.6
SUBURBAN	601	27.5	31.5	25.9	15.0	428	27.1	25.3	21.1	26.5
RURAL	233	47.7	37.3	7.4	7.5	246	54.6	21.1	13.3	11.0

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

100 percent) categories. The shift away from academic programs took place primarily among low and middle SES schools, schools in the public sector, rural schools, and those in the North Central region. The largest increase in the number of schools with predominately academic programs (70 to 100 percent) occurred among high SES schools and in the Catholic sector.

Tables 4-8 and 4-9 present similar data for enrollments in general and vocational curricula. The percentage of schools with a low proportion (0 to 29 percent) of students in the general curriculum decreased sharply, from 55.3 percent of the 1972 schools to 35.6 percent of the 1980 schools. Schools with a high proportion (70 to 100 percent) of students in the general curriculum showed a corresponding increase from 14.2 percent of the 1972 schools to 31.3 percent of the 1980 schools. The increase toward higher proportions of students in the general curriculum took place primarily among low and middle SES schools, public and non-Catholic private schools, in schools outside of the Northeast, and in rural schools.

The percentage of schools with a high proportion (20 to 100 percent) of students in the vocational curriculum decreased moderately from 59 percent in 1972 to 48 percent in 1980, while schools with a low proportion (0 to 9 percent) of vocational curriculum students increased. The increase toward fewer students in the vocational curriculum was primarily among high SES schools, Catholic schools, schools in the West, and schools in urban areas.

5. Students with Special Educational Needs

Tables 4-10 and 4-11 show the mean percent of students classified by schools as handicapped and as disadvantaged in 1972 and 1980. It is difficult to make direct comparisons because of the way in which the questions were worded in these two years. In 1972, only the schools that classified students were asked to report the number of students classified as handicapped or disadvantaged. The 1980 school questionnaire asked all schools to report the percent of students classified as handicapped or disadvantaged. As a result, the mean in 1972 does not include a large number of schools that may not have had any students with special educational needs.

One can examine differences across classification variables in 1980, however. In that year, an average of 5 percent of students in low SES schools were classified as handicapped compared to 2 percent in high SES schools, and 4 percent of students in public schools compared to 1 percent in Catholic schools. One finds even greater contrasts in the percent of students classified as disadvantaged. More than 30 percent of students in low SES schools were disadvantaged in 1980 compared to 3 percent in high SES schools. Large differences also existed between public and Catholic schools (17.3 percent versus 5 percent) and between the South and other regions of the country.

TABLE 4-8

PERCENT ENROLLED IN GENERAL CURRICULUM

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%
TOTAL	1196	55.3	19.6	10.9	14.2	883	35.6	17.0	16.1	31.3
AVERAGE SES OF STUDENTS:										
LOW	299	45.3	21.9	10.3	22.5	208	22.1	11.1	17.5	49.4
MIDDLE	596	58.2	19.0	12.8	10.1	435	27.8	20.0	19.0	33.2
HIGH	301	65.1	17.3	6.9	10.7	221	67.4	13.9	5.9	12.8
SCHOOL TYPE:										
PUBLIC	1070	50.7	22.1	10.4	16.7	768	26.8	18.5	18.8	35.9
PRIVATE	12	72.8	0.0	27.2	0.0	37	49.0	16.9	9.9	24.2
CATHOLIC	71	81.1	8.5	9.7	0.8	78	89.6	3.3	3.3	3.8
GEOGRAPHIC REGION:										
NORTHEAST	241	88.8	8.6	2.0	0.5	185	71.7	16.7	8.1	3.4
NORTH CENTRAL	316	44.9	22.0	17.2	15.9	247	24.3	20.1	20.0	35.5
SOUTH	443	46.6	23.4	12.8	17.3	274	38.2	15.2	12.0	34.7
WEST	196	53.1	20.4	5.7	20.8	177	17.4	15.9	24.1	42.7
COMMUNITY TYPE:										
URBAN	357	63.6	15.7	5.8	14.9	217	44.2	18.7	11.6	25.5
SUBURBAN	601	57.5	22.3	9.6	10.7	424	48.2	18.9	15.0	17.8
RURAL	233	50.3	18.7	13.9	17.1	242	23.6	15.1	18.4	42.9

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-9

PERCENT ENROLLED IN VOCATIONAL-TECHNICAL CURRICULUM

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-9%	% WITH 10-14%	% WITH 15-19%	% WITH 20-100%	NUMBER OF SCHOOLS	% WITH 0-9%	% WITH 10-14%	% WITH 15-19%	% WITH 20-100%
TOTAL	1196	31.9	3.0	6.1	59.0	900	41.6	6.1	4.4	48.0
AVERAGE SES OF STUDENTS:										
LOW	299	28.9	2.0	3.2	65.9	211	38.7	1.9	3.7	55.7
MIDDLE	596	29.8	2.5	5.0	62.7	444	31.6	5.9	5.1	57.4
HIGH	301	42.9	6.4	14.2	36.5	226	61.7	11.1	3.7	23.6
SCHOOL TYPE:										
PUBLIC	1070	29.3	3.1	3.9	63.7	784	29.7	5.5	5.2	59.6
PRIVATE	12	77.4	0.0	18.7	3.9	37	84.3	5.0	0.0	10.8
CATHOLIC	71	42.1	4.4	21.8	31.7	79	65.4	13.6	5.5	15.4
GEOGRAPHIC REGION:										
NORTHEAST	241	18.2	2.6	9.2	69.9	193	28.5	10.9	4.5	56.1
NORTH CENTRAL	316	35.0	3.3	6.7	55.0	254	38.7	5.0	4.8	51.4
SOUTH	443	35.7	2.9	5.7	55.7	279	41.8	6.8	2.5	48.8
WEST	196	34.6	3.2	1.9	60.2	174	57.3	2.0	7.1	33.7
COMMUNITY TYPE:										
URBAN	357	35.8	4.6	9.2	50.5	222	58.6	7.2	5.2	29.0
SUBURBAN	601	29.5	4.6	10.2	55.7	433	34.3	6.8	4.8	54.1
RURAL	233	32.9	1.0	1.0	65.0	245	40.6	5.1	3.8	50.6

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-10

PERCENT OF STUDENTS CLASSIFIED AS HANDICAPPED

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	841	10573	3.86	4.8	886	19006	3.70	5.6	5.22	-0.16	-0.03
AVERAGE SES OF STUDENTS:											
LOW	195	2924	6.33	7.1	202	4208	4.99	4.9	6.11	-1.34	-0.22
MIDDLE	432	5773	3.15	3.2	441	10266	3.92	6.6	5.20	0.77	0.15
HIGH	214	1875	2.19	1.9	226	4079	1.97	2.6	2.28	-0.22	-0.10
SCHOOL TYPE:											
PUBLIC	788	9599	4.06	4.9	769	14550	4.24	5.8	5.34	0.18	0.03
PRIVATE	1	19	0.64	0.0	35	2899	2.37	5.5	5.62	1.72	0.31
CATHOLIC	20	657	1.41	1.1	82	1556	1.09	1.9	1.75	-0.32	-0.18
GEOGRAPHIC REGION:											
NORTHEAST	183	2698	3.44	3.5	190	3075	3.77	9.2	7.00	0.34	0.05
NORTH CENTRAL	225	3534	3.74	3.9	256	5949	3.48	3.8	3.85	-0.26	-0.07
SOUTH	272	2918	5.02	6.9	264	6339	3.39	3.9	5.63	-1.63	-0.29
WEST	161	1423	2.60	2.3	176	3643	4.54	6.6	5.02	1.95 *	0.39
COMMUNITY TYPE:											
URBAN	258	1532	2.28	2.2	221	3087	3.25	9.1	6.37	0.96	0.15
SUBURBAN	439	4776	3.60	4.5	422	6650	3.37	4.9	4.72	-0.24	-0.05
RURAL	139	4217	4.74	5.5	243	9268	4.09	4.4	4.86	-0.66	-0.13

* SIGNIFICANT AT .05 OR LESS

TABLE 4-11

PERCENT OF STUDENTS CLASSIFIED AS DISADVANTAGED

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	671	9235	21.82	22.1	921	19177	13.90	19.8	20.82	-7.92 *	-0.38
AVERAGE SES OF STUDENTS:											
LOW	205	3363	36.90	24.7	218	4436	30.72	28.5	26.76	-6.18	-0.23
MIDDLE	329	4592	15.20	15.7	454	10151	10.76	12.8	14.11	-4.44 *	-0.31
HIGH	137	1281	5.93	7.1	229	4120	3.09	5.5	6.14	-2.84 *	-0.46
SCHOOL TYPE:											
PUBLIC	622	8465	22.21	21.6	804	14707	17.27	21.1	21.33	-4.94 *	-0.23
PRIVATE	0	0	0.0	0.0	36	3013	1.82	5.6	5.80	0.0	0.0
CATHOLIC	16	414	9.34	13.8	81	1457	4.79	9.2	10.24	-4.54	-0.44
GEOGRAPHIC REGION:											
NORTHEAST	139	2054	16.28	20.0	192	3137	14.03	17.6	18.69	-2.25	-0.12
NORTH CENTRAL	158	2729	15.87	16.4	263	6019	8.82	13.1	14.49	-7.05 *	-0.49
SOUTH	276	3480	31.59	25.2	287	6601	20.47	25.4	25.34	-11.12 *	-0.44
WEST	98	972	15.19	15.3	179	3419	10.02	14.7	14.95	-5.17	-0.35
COMMUNITY TYPE:											
URBAN	194	1077	22.27	25.0	227	3258	14.87	24.4	24.74	-7.40	-0.30
SUBURBAN	324	3605	14.31	17.7	450	6863	9.77	15.5	16.46	-4.54 *	-0.28
RURAL	150	4511	27.78	22.8	244	9056	16.68	20.3	21.35	-11.11 *	-0.52

* SIGNIFICANT AT .05 OR LESS

B. STAFF CHARACTERISTICS

Another set of factors affecting the quality of students' educational experiences is the nature of the school's faculty. Relatively comparable data were available for both 1972 and 1980 in four areas: 1) number of students per classroom teacher, 2) percentage of staff with advanced degrees, 3) teacher turnover rates, and 4) racial/ethnic composition of the school's staff.

1. Student/Staff Ratios

Between 1972 and 1980, the average number of students per high school classroom teacher dropped from 17.6 to 14.7. (See Table 4-12.) This decline was statistically significant for schools at all three SES levels, in all three types of communities, in public schools, and in the South and West. The effect size varied across these groups, however. Middle SES schools and suburban and rural schools showed a moderate effect size, while high SES, urban, and Southern and Western schools showed large effect sizes.

2. Percentage of Staff with Advanced Degrees

Table 4-13 shows the percentage of schools with low, moderate and high numbers of high school teachers holding master's or doctor's degrees. Nationally, the percentage of schools where the majority of the staff hold advanced degrees increased from 22.1 percent to 31.6 percent between 1972 and 1980. The largest shifts occurred in low SES schools, rural schools, and schools located in the South. In each of these three categories, the percentage of schools where more than 50 percent of the teachers held master's or doctor's degrees increased from approximately 11 percent to 27 percent over this eight-year period. Large differences among groups of schools remained in 1980, however. For example, 48 percent of high SES and only 24 percent of low SES schools had a majority of their teachers with advanced degrees. Similar contrasts are 57 percent in the Northeast versus 22.5 percent in the West, and 43 percent in urban schools versus 22 percent in rural schools.

3. Teacher Turnover

Administrators were asked to report the percentage of full-time high school teachers who left their school for reasons other than death or retirement. The results are contained in Table 4-14. The percentage of schools losing more than 20 percent of their staff in one year increased from 17.5 percent to 20.1 percent between 1972 and 1980. The problem of growing teacher turnover rates is magnified when one looks at the change in the percentage of schools with turnover rates of 10 percent or more. Nationally, the figures increased from 37.8 percent to 46.2 percent between 1972 and 1980, and in urban communities, the percentages grew from 26.9 percent to 39.5 percent. By 1980, there was little difference in teacher turnover rates among low, medium and high SES schools, but non-public schools, rural schools, and schools in the North Central regions had a disproportionate number of schools with high staff turnover.

TABLE 4-12

NUMBER OF STUDENTS PER TEACHER

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	1238	18666	17.61	5.8	908	19234	14.74	6.7	6.23	-2.86 *	-0.46
AVERAGE SES OF STUDENTS:											
LOW	306	5896	17.58	6.3	207	4257	14.98	8.0	7.01	-2.61 *	-0.37
MIDDLE	616	9290	17.15	5.3	454	10397	15.04	5.8	5.52	-2.11 *	-0.38
HIGH	316	3481	18.86	6.2	229	3983	15.01	6.7	6.44	-3.84 *	-0.60
SCHOOL TYPE:											
PUBLIC	1108	15775	17.76	5.7	793	14816	15.97	6.3	5.97	-1.79 *	-0.30
PRIVATE	12	811	11.58	4.4	34	2898	6.86	3.8	4.07	-4.71	-1.16
CATHOLIC	72	1644	17.93	5.2	81	1519	17.83	4.3	4.78	-0.10	-0.02
GEOGRAPHIC REGION:											
NORTHEAST	258	3655	16.91	5.7	192	3112	15.22	7.1	6.34	-1.68	-0.27
NORTH CENTRAL	320	5793	16.12	5.5	257	5900	14.92	5.7	5.60	-1.20	-0.21
SOUTH	457	6234	17.68	4.9	278	6559	14.78	6.4	5.52	-2.90 *	-0.53
WEST	203	2984	21.20	6.7	181	3664	13.99	8.4	7.57	-7.21 *	-0.95
COMMUNITY TYPE:											
URBAN	372	2836	19.66	5.6	224	3111	13.81	9.2	7.18	-5.84 *	-0.81
SUBURBAN	619	7375	18.70	5.7	438	6795	17.33	5.8	5.74	-1.37 *	-0.24
RURAL	240	8361	15.94	5.6	246	9327	13.17	5.7	5.68	-2.77 *	-0.49

* SIGNIFICANT AT .05 OR LESS

TABLE 4-13

PERCENT OF FULL TIME HIGH SCHOOL TEACHERS WITH MASTER'S OR DOCTOR'S DEGREES

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%	NUMBER OF SCHOOLS	% WITH 0-29%	% WITH 30-49%	% WITH 50-69%	% WITH 70-100%
TOTAL	1254	47.9	30.0	15.2	6.9	969	36.3	32.1	19.9	11.7
AVERAGE SES OF STUDENTS:										
LOW	309	69.8	20.0	7.2	3.0	229	36.1	39.9	11.3	12.7
MIDDLE	624	43.4	34.0	15.6	6.9	483	41.4	29.2	19.0	10.4
HIGH	321	22.6	36.7	27.4	13.3	234	21.2	30.6	32.7	15.5
SCHOOL TYPE:										
PUBLIC	1125	51.2	28.5	14.2	6.2	849	36.6	31.2	18.8	13.4
PRIVATE	12	30.5	54.1	13.6	1.8	37	39.2	32.8	24.2	3.8
CATHOLIC	72	18.8	37.8	28.1	15.3	83	27.6	39.1	22.3	11.0
GEOGRAPHIC REGION:										
NORTHEAST	260	29.5	30.9	23.5	16.1	206	20.3	21.8	26.0	31.9
NORTH CENTRAL	324	49.2	30.1	14.5	6.3	275	40.7	31.6	16.0	11.7
SOUTH	462	55.5	32.2	10.9	1.4	297	38.6	34.0	21.3	6.1
WEST	208	52.2	24.5	15.3	8.0	191	39.2	38.2	18.2	4.3
COMMUNITY TYPE:										
URBAN	380	31.9	37.7	20.7	9.8	238	33.5	23.3	26.6	16.5
SUBURBAN	626	34.6	34.9	19.8	10.8	468	30.3	30.5	23.7	15.5
RURAL	241	65.4	23.5	8.8	2.3	263	41.6	36.3	14.7	7.3

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-14

PERCENT OF FULL TIME HIGH SCHOOL TEACHERS LEAVING SINCE END OF LAST SCHOOL YEAR

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-9%	% WITH 10-19%	% WITH 20-100%	NUMBER OF SCHOOLS	% WITH 0-4%	% WITH 5-9%	% WITH 10-19%	% WITH 20-100%
TOTAL	1258	46.8	15.4	20.3	17.5	979	38.1	15.7	26.1	20.1
AVERAGE SES OF STUDENTS:										
LOW	310	51.2	12.3	15.3	21.3	232	43.3	7.7	24.7	24.3
MIDDLE	625	42.7	17.7	23.5	16.1	487	35.4	19.1	25.4	20.2
HIGH	323	50.2	14.4	20.3	15.1	238	37.3	17.1	28.1	17.4
SCHOOL TYPE:										
PUBLIC	1126	47.7	16.3	19.0	17.0	860	41.4	16.1	25.4	17.0
PRIVATE	12	22.9	5.5	62.3	9.2	36	27.0	15.6	26.4	31.0
CATHOLIC	73	52.2	9.8	8.8	29.2	83	25.8	12.2	31.9	30.1
GEOGRAPHIC REGION:										
NORTHEAST	262	54.1	20.2	20.6	5.1	207	55.1	18.8	17.9	8.2
NORTH CENTRAL	327	40.2	14.4	20.5	24.9	276	30.9	16.0	27.0	26.1
SOUTH	461	44.3	14.7	21.7	19.3	299	33.9	13.5	32.3	20.3
WEST	208	56.0	12.6	16.5	14.9	197	42.4	16.4	20.5	20.7
COMMUNITY TYPE:										
URBAN	382	57.1	16.0	14.0	12.9	241	44.6	15.9	23.3	16.2
SUBURBAN	628	47.4	17.3	21.4	13.9	472	42.1	20.2	24.3	13.5
RURAL	241	43.0	13.6	21.3	22.1	266	33.0	12.4	28.3	26.2

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

4. Racial/Ethnic Composition of Staff

As shown in Table 4-15, the percentage of schools with predominantly minority staff (more than 50 percent minority faculty) was very small in both 1972 and 1980 (4 percent), while the percentage with nearly all white staff was large (70 percent). There was, however, a large increase in the percentage of low SES schools with mostly minority staff members and a moderate increase in the percentage of schools with more than 20 percent minority staff in the South. Looking across the classification variables in 1980, one finds that larger percentages of low SES schools, urban schools, and schools in the South have high concentrations of minority staff than do other school types.

C. EDUCATIONAL PROGRAMS AND TEACHING METHODS

1. Educational Programs

The 1972 and 1980 school questionnaires provided few comparable variables describing school programs. Within the limits of existing data, this section examines the availability of special educational programs and the use of ability grouping in 1972 and 1980.

a. Handicapped Education. Table 4-16 shows the type of placement given handicapped students in 1972 and 1980 (1 = no special classes, 2 = some special classes, and 3 = all special classes). The figures imply that schools began to make slightly greater use of special classes during that period. The small change masks two opposing trends: the larger number of severely handicapped students served by schools in 1980 who require special classes, and the effort to "mainstream" mildly handicapped students into regular classrooms. Public schools appear to make greater use of special classes than do private or Catholic schools. This variation may be explained by the different mix of handicapped students served in each sector.

b. Federal Programs. Tables 4-17 through 4-20 report the percentage of schools participating in four federal programs: Title I (Education of Children of Economically Disadvantaged), Title VII (Bilingual Education), Vocational Education Basic Programs, and Vocational Education Consumer and Homemaking Education. The percentage of schools participating in Title I decreased generally from 67.1 percent to 55.6 percent between 1972 and 1980. The largest declines are found among low and high SES schools, and schools in the South and West. Program participation increased among middle SES and Catholic schools.

More schools chose to participate in the federal bilingual education program between 1972 and 1980. This increase was consistent across all classifications, but reached significance only for high SES, public, urban, and suburban schools. The increase was greatest in urban schools. More surprisingly, the participation rate of high SES schools nearly tripled, from 3.8 percent to 10.7 percent.

TABLE 4-15

PERCENT OF CURRENT FACULTY WHO ARE WHITE

	NLS 1972					HSB 1980				
	NUMBER OF SCHOOLS	% WITH 0-49%	% WITH 50-79%	% WITH 80-94%	% WITH 95-100%	NUMBER OF SCHOOLS	% WITH 0-49%	% WITH 50-79%	% WITH 80-94%	% WITH 95-100%
TOTAL	1232	4.4	9.3	15.3	71.0	919	3.9	7.6	18.3	70.2
AVERAGE SES OF STUDENTS:										
LOW	299	6.9	17.3	21.3	54.6	213	14.4	19.2	20.2	46.2
MIDDLE	616	4.3	6.9	13.3	75.5	458	0.8	4.8	21.2	73.2
HIGH	317	0.4	2.2	10.3	87.1	226	0.0	2.5	11.1	86.4
SCHOOL TYPE:										
PUBLIC	1104	4.2	10.2	16.1	69.5	807	5.0	8.8	20.4	65.8
PRIVATE	11	0.0	0.0	14.3	85.7	35	0.0	3.9	7.1	89.0
CATHOLIC	71	2.3	0.0	7.2	90.5	77	0.0	2.7	17.4	79.8
GEOGRAPHIC REGION:										
NORTHEAST	250	2.9	1.7	8.5	87.0	195	1.4	2.4	8.6	87.6
NORTH CENTRAL	321	3.2	3.1	10.3	83.4	260	1.2	2.6	5.6	90.6
SOUTH	456	7.5	22.9	23.9	45.6	281	8.8	15.4	30.0	45.7
WEST	205	2.0	1.7	14.8	81.5	183	1.6	6.3	25.3	66.8
COMMUNITY TYPE:										
URBAN	372	4.8	19.5	22.5	53.2	226	7.4	17.1	16.1	59.4
SUBURBAN	618	4.6	8.2	15.2	72.0	448	1.3	6.0	22.7	70.1
RURAL	235	4.1	7.3	13.2	75.4	245	4.7	5.7	15.7	73.9

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-16

EXTENT OF SPECIAL ACCOMODATIONS FOR HANDICAPPED STUDENTS
(1=NO SPECIAL CLASSES, 3=ALL SPECIAL CLASSES)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	917	11459	1.59	0.5	924	17724	1.68	0.5	0.50	0.10 *	0.19
AVERAGE SES OF STUDENTS:											
LOW	208	3158	1.62	0.6	218	4368	1.83	0.4	0.50	0.21 *	0.42
MIDDLE	479	6281	1.55	0.5	465	9651	1.69	0.4	0.49	0.14 *	0.29
HIGH	230	2020	1.65	0.5	219	3221	1.53	0.5	0.49	-0.12	-0.25
SCHOOL TYPE:											
PUBLIC	857	10365	1.63	0.5	845	14932	1.78	0.4	0.47	0.15 *	0.32
PRIVATE	2	36	1.00	0.0	22	1623	1.22	0.4	0.41	0.22	0.55
CATHOLIC	24	730	1.05	0.1	57	1169	1.06	0.2	0.18	0.01	0.07
GEOGRAPHIC REGION:											
NORTHEAST	200	2870	1.58	0.6	196	3146	1.68	0.5	0.53	0.10	0.19
NORTH CENTRAL	246	3817	1.54	0.5	263	5670	1.74	0.4	0.47	0.20 *	0.42
SOUTH	297	3262	1.58	0.6	280	5667	1.71	0.4	0.52	0.12	0.24
WEST	174	1512	1.72	0.5	185	3241	1.54	0.5	0.47	-0.18 *	-0.38
COMMUNITY TYPE:											
URBAN	281	1774	1.54	0.5	229	2654	1.55	0.5	0.51	0.01	0.02
SUBURBAN	479	5172	1.60	0.5	439	6428	1.61	0.4	0.49	0.01	0.02
RURAL	152	4465	1.59	0.6	256	8642	1.78	0.4	0.49	0.18 *	0.38

* SIGNIFICANT AT .05 OR LESS

TABLE 4-17

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE I, ELEMENTARY AND SECONDARY EDUCATION ACT (EDUCATION OF CHILDREN OF ECONOMICALLY DISADVANTAGED)

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	1169	17705	67.1	962	20384	55.6	-11.4 *
AVERAGE SES OF STUDENTS:							
LOW	287	5736	89.0	227	4640	66.4	-22.6 *
MIDDLE	585	8852	61.8	475	10763	65.9	4.1
HIGH	297	3117	41.5	238	4350	24.4	-17.1 *
SCHOOL TYPE:							
PUBLIC	1050	15126	75.1	845	15706	69.7	-5.4
PRIVATE	10	726	0.0	37	3170	1.1	1.1
CATHOLIC	69	1455	14.8	80	1508	23.6	8.8
GEOGRAPHIC REGION:							
NORTHEAST	246	3296	65.6	205	3395	68.4	2.8
NORTH CENTRAL	305	5480	66.9	270	6140	68.5	1.5
SOUTH	432	6017	71.1	295	6948	52.3	-18.8 *
WEST	186	2912	60.8	192	3901	30.3	-30.5 *
COMMUNITY TYPE:							
URBAN	342	2670	33.2	238	3454	24.5	-8.7
SUBURBAN	590	6884	62.1	463	7124	49.2	-12.8 *
RURAL	230	8058	82.9	261	9806	71.2	-11.7 *

* SIGNIFICANT AT .05 OR LESS

TABLE 4-18

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE VII, ELEMENTARY AND SECONDARY EDUCATION ACT (BILINGUAL EDUCATION)

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	1051	15583	6.9	957	20333	10.6	3.7 *
AVERAGE SES OF STUDENTS:							
LOW	241	4643	7.4	228	4627	13.1	5.6
MIDDLE	522	7926	7.7	474	10782	10.0	2.3
HIGH	288	3014	3.8	236	4327	10.7	6.9 *
SCHOOL TYPE:							
PUBLIC	941	13222	8.0	838	15628	13.0	5.0 *
PRIVATE	10	726	0.0	37	3170	3.4	3.4
CATHOLIC	66	1399	0.5	82	1534	0.4	-0.1
GEOGRAPHIC REGION:							
NORTHEAST	223	2742	7.6	201	3356	12.0	4.3
NORTH CENTRAL	276	4921	4.6	270	6122	7.6	3.0
SOUTH	377	5121	6.1	290	6876	7.9	1.8
WEST	175	2799	11.4	196	3978	18.6	7.2
COMMUNITY TYPE:							
URBAN	313	2503	8.2	238	3438	20.8	12.6 *
SUBURBAN	539	6082	7.7	456	7035	14.5	6.8 *
RURAL	192	6904	5.6	263	9859	4.2	-1.3

* SIGNIFICANT AT .05 OR LESS

TABLE 4-19

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE I-B, VOCATIONAL EDUCATION ACT OF 1963 (VOCATIONAL EDUCATION BASIC PROGRAMS)

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	1140	16862	62.5	948	19926	52.7	-9.8 *
AVERAGE SES OF STUDENTS:							
LOW	272	5178	74.4	222	4335	66.4	-8.0
MIDDLE	575	8595	60.2	468	10635	59.2	-1.0
HIGH	293	3089	49.2	237	4333	28.8	-20.4 *
SCHOOL TYPE:							
PUBLIC	1021	14292	70.4	829	15333	67.8	-2.7
PRIVATE	11	766	1.5	36	3021	1.1	-0.4
CATHOLIC	66	1421	7.3	83	1572	5.2	-2.2
GEOGRAPHIC REGION:							
NORTHEAST	233	3056	55.6	196	3301	49.0	-6.5
NORTH CENTRAL	303	5390	55.8	269	6026	56.9	1.2
SOUTH	417	5521	66.7	290	6639	57.3	-9.4
WEST	187	2895	74.5	193	3959	41.8	-32.7 *
COMMUNITY TYPE:							
URBAN	348	2671	54.2	230	3394	33.4	-20.8 *
SUBURBAN	573	6588	61.5	458	7104	54.2	-7.3
RURAL	212	7509	66.0	260	9428	58.6	-7.5

* SIGNIFICANT AT .05 OR LESS

TABLE 4-20

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE I-F, VOCATIONAL EDUCATION ACT OF 1963
(CONSUMER AND HOMEMAKING EDUCATION)

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	1097	15967	50.2	963	20347	59.3	9.1 *
AVERAGE SES OF STUDENTS:							
LOW	260	4590	54.5	227	4507	73.4	18.9 *
MIDDLE	550	8318	49.8	474	10648	67.9	18.0 *
HIGH	287	3059	44.8	239	4352	29.8	-15.0 *
SCHOOL TYPE:							
PUBLIC	984	13528	57.6	843	15605	76.3	18.7 *
PRIVATE	11	766	1.5	37	3170	1.1	-0.5
CATHOLIC	64	1398	0.8	83	1572	8.3	7.5
GEOGRAPHIC REGION:							
NORTHEAST	220	2844	38.3	198	3336	44.7	6.4
NORTH CENTRAL	288	5249	45.9	271	6051	66.3	20.4 *
SOUTH	406	5542	56.5	297	6980	68.2	11.6 *
WEST	183	2332	59.5	197	3981	45.6	-13.9
COMMUNITY TYPE:							
URBAN	324	2566	37.7	235	3429	33.4	-4.3
SUBURBAN	560	6380	49.5	468	7201	58.7	9.1 *
RURAL	206	6927	55.3	260	9717	69.0	13.7 *

* SIGNIFICANT AT .05 OR LESS

The percentage of schools involved in the federal vocational education program declined nationally from 62.5 percent to 52.7 percent. Large and significant decreases in participation occurred among high SES schools, in urban schools, and in schools located in the West. In 1980, the program was available primarily in the public schools and in low and middle SES schools.

The percentage of schools participating in consumer and homemaking education (Title I-F, Vocational Education Act of 1963) increased significantly, from 50.2 percent in 1972 to 59.3 percent in 1980. In 1972 this program was available somewhat more often in low and middle SES schools than in high SES schools. By 1980, however, this gap had widened considerably with low and middle SES schools showing significant increases in participation while high SES schools showed a significant decrease in participation. This program is available primarily in public schools, which showed a significant increase in participation between 1972 and 1980. In 1972, more schools in the South and the West than in the Northeastern and North Central regions participated. By 1980 the program was more often available in the North Central and Southern regions, and schools in both of these regions showed significant increases in participation. This program is available more frequently in rural than in urban schools. Both suburban and rural schools showed significant increases in participation between 1972 and 1980, but a decrease in urban school participation widened the difference across schools in different types of communities.

c. Advanced Placement. The percentage of schools offering Advanced Placement (AP) courses increased significantly, from 15 percent in 1972 to 30 percent in 1980. (See Table 4-21.) The availability of these courses varied greatly across types of schools. For example, in 1980 only 22 percent of low SES schools but 62 percent of high SES schools offered AP courses. AP courses were less available, in 1980, to public than to nonpublic school students. Nearly 60 percent of schools in the Northeastern region but only 18 percent of schools in the North Central region offered AP courses in 1980. Moreover, 42.8 percent of suburban schools but only 18.2 percent of rural schools provided AP for their students. The increases in the availability of AP courses between 1972 and 1980 reached significance for all SES groups but was greatest in high SES schools, thus increasing the gap in the availability of AP courses in high and low SES schools. Similarly, the increase was significant in all geographic regions but was greatest in the Northeast, again increasing the difference among regions. The increase in the availability of AP courses was also significant for public schools and for suburban and rural schools.

d. Ability Grouping. The percentage of schools using ability grouping declined significantly between 1972 and 1980. (See Table 4-22.) In 1972, 59.5 percent of the schools used grouping. By 1980 this had decreased to 51.2 percent. Grouping was used more often in high than in low SES schools in both years. The decline in the use of grouping was

TABLE 4-21

PERCENT OF HIGH SCHOOLS OFFERING ADVANCED PLACEMENT COURSES

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	1129	15688	15.0	971	20184	30.0	15.0 *
AVERAGE SES OF STUDENTS:							
LOW	266	4296	5.8	231	4675	22.0	16.2 *
MIDDLE	563	8380	13.7	479	10848	21.8	8.1 *
HIGH	300	3011	31.7	240	4200	62.1	30.3 *
SCHOOL TYPE:							
PUBLIC	1016	13238	14.3	855	15801	28.3	14.0 *
PRIVATE	11	799	6.8	36	2857	33.9	27.0
CATHOLIC	62	1326	25.4	80	1526	40.2	14.8
GEOGRAPHIC REGION:							
NORTHEAST	237	3227	28.4	204	3389	59.6	31.2 *
NORTH CENTRAL	299	5158	10.0	273	6123	18.4	8.3 *
SOUTH	403	5166	11.2	297	6979	25.1	13.9 *
WEST	190	2137	16.0	197	3693	31.2	15.2 *
COMMUNITY TYPE:							
URBAN	357	2630	32.0	241	3160	38.4	6.4
SUBURBAN	563	6301	19.5	465	7095	42.8	23.3 *
RURAL	202	6663	3.9	265	9929	18.2	14.2 *

* SIGNIFICANT AT .05 OR LESS

TABLE 4-22

PERCENT OF HIGH SCHOOLS USING ABILITY GROUPINGS

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	1118	16446	59.5	984	20410	51.2	-8.3 *
AVERAGE SES OF STUDENTS:							
LOW	275	5039	53.4	233	4579	44.2	-9.2
MIDDLE	553	8155	59.1	486	10801	49.1	-10.1 *
HIGH	290	3253	69.9	242	4390	61.7	-8.1
SCHOOL TYPE:							
PUBLIC	997	13665	58.7	864	15825	50.5	-8.2 *
PRIVATE	12	811	41.0	37	3014	52.1	11.1
CATHOLIC	67	1565	72.8	83	1572	56.6	-16.1
GEOGRAPHIC REGION:							
NORTHEAST	242	3454	80.7	208	3450	71.5	-9.2
NORTH CENTRAL	279	4976	46.6	278	6206	42.3	-4.3
SOUTH	412	5220	58.3	303	7036	48.3	-10.0
WEST	185	2795	58.5	195	3718	52.9	-5.6
COMMUNITY TYPE:							
URBAN	343	2663	56.5	244	3485	56.4	-0.1
SUBURBAN	566	6630	70.5	475	7112	64.5	-6.0
RURAL	203	7087	50.4	265	9813	39.8	-10.7

* SIGNIFICANT AT .05 OR LESS

significant only for middle SES schools. Catholic schools used grouping more than public or private schools. The extent of this difference decreased between 1972 and 1980, however, due to a decline in the use of grouping in Catholic schools and an increase in the use of grouping in private schools. Grouping was used more often in the Northeast than in other regions and more often in suburban than in rural or urban schools. It should be noted, however, that the information on grouping may not have identical meaning in 1972 and 1980 since the questions were phrased somewhat differently in the two questionnaires.

2. Teaching Methods

Students were asked how often each of six instructional methods were used in their classes: listening to teachers' lectures; participating in student-centered discussions; working on a project or in a laboratory; writing essays, themes, poetry or stories; having individualized instruction; and using teaching machines or computer-assisted instruction. Answers were scaled as 1 = Never, 2 = Seldom, 3 = Fairly Often, and 4 = Frequently.

Table 4-23 summarizes the mean responses for 1972 and 1980 and the changes that occurred during that period. The most frequently used instructional method in both years was listening to lectures by the teacher with a mean rating of 3.26. Writing essays, themes, etc., and student-centered discussions had average ratings slightly below 3, which is Fairly Often. The use of these three approaches showed little change between 1972 and 1980. Effect sizes were 0.01, -0.03, and -0.08, respectively. The remaining three methods, which were less frequently used, have changes with small effect sizes, ranging from -0.12 for working on a project or in a lab to 0.17 for use of teaching machines or computer-assisted instruction. The different rates of change did not affect the rank order of the instructional approaches over the eight years.

Table 4-23

Instructional Method	Mean Response 1972	Mean Response 1980	Difference 1980-1972	Effect Size
Listening to Teachers' Lectures	3.26	3.27	0.01	0.01
Writing Essays, Themes, etc.	2.85	2.82	-0.03	-0.03
Student-Centered Discussions	2.73	2.67	-0.06*	-0.08
Work on Project or in Lab	2.48	2.37	-0.12*	-0.12
Individualized Instruction	1.98	2.09	0.11*	0.13
Teaching Machines or CAI	1.48	1.62	0.15*	0.17

*Significant at .05 or less

Some variations can be seen when the data are arrayed by the classification variables. (See Tables 4-24 through 4-29.) The use of lectures increased somewhat in academic programs (0.12), among high SES students (0.11), and in Catholic (0.18) schools. The largest significant effect size is found for high SES students attending Catholic schools (0.30).

TABLE 4-24

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: LISTENING TO THE TEACHER'S LECTURE
(1=NEVER; 4=FREQUENTLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16517	3018167	3.26	0.8	27909	3009033	3.27	0.8	0.77	0.01	0.01
SEX:											
MALE	8185	1501397	3.22	0.8	12789	1389867	3.23	0.8	0.77	0.02	0.02
FEMALE	8327	1515753	3.31	0.8	13972	1502299	3.32	0.8	0.76	0.01	0.02
SES:											
LOW	4733	729763	3.17	0.8	8274	799167	3.14	0.8	0.81	-0.04	-0.04
MIDDLE	7872	1544617	3.26	0.8	12719	1414929	3.27	0.8	0.76	0.01	0.02
HIGH	3851	733344	3.36	0.7	6153	720755	3.44	0.7	0.70	0.08 *	0.11
RACE:											
WHITE	12780	2513880	3.28	0.7	19745	2352084	3.30	0.8	0.75	0.02	0.03
BLACK	2062	249152	3.20	0.8	3670	335200	3.16	0.8	0.81	-0.04	-0.05
ASIAN-AMERICAN	191	27544	3.35	0.7	357	38562	3.37	0.8	0.75	0.02	0.02
AMERICAN INDIAN	187	31116	3.09	0.8	214	21937	3.16	0.9	0.82	0.07	0.08
MEXICAN-AMERICAN	547	71936	3.17	0.7	1864	100223	3.22	0.8	0.78	0.04	0.05
PUERTO RICAN	93	9513	2.88	0.9	303	17664	3.12	0.9	0.88	0.24	0.28
OTHER HISPANIC	119	18268	3.17	0.8	952	65199	3.15	0.8	0.84	-0.03	-0.03
SCHOOL TYPE:											
PUBLIC	14804	2678145	3.26	0.8	24372	2705198	3.26	0.8	0.77	-0.00	-0.00
PRIVATE	67	16549	3.15	0.7	868	104229	3.33	0.7	0.73	0.18	0.24
CATHOLIC	1022	234467	3.32	0.7	2669	199606	3.45	0.7	0.70	0.13 *	0.18
GEOGRAPHIC REGION:											
NORTHEAST	3587	799437	3.19	0.8	5632	691948	3.17	0.8	0.81	-0.02	-0.03
NORTH CENTRAL	4537	911851	3.30	0.7	8030	862802	3.35	0.7	0.74	0.05 *	0.07
SOUTH	5434	786089	3.30	0.8	9170	910828	3.24	0.8	0.77	-0.07 *	-0.08
WEST	2959	520791	3.24	0.7	5077	543455	3.34	0.7	0.74	0.10 *	0.13
CURRICULUM:											
GENERAL	5610	959914	3.20	0.8	10194	1102206	3.20	0.8	0.77	0.00	0.01
ACADEMIC	6779	1385411	3.38	0.7	10480	1134104	3.46	0.7	0.70	0.08 *	0.12
VOCATIONAL	4127	672540	3.12	0.8	6824	727874	3.10	0.8	0.82	-0.02	-0.03
COMMUNITY TYPE:											
URBAN	4514	780716	3.26	0.8	6418	600682	3.24	0.8	0.79	-0.02	-0.03
SUBURBAN	7906	1530876	3.28	0.7	13441	1489163	3.32	0.8	0.75	0.03	0.05
RURAL	3650	634714	3.22	0.8	8050	919188	3.22	0.8	0.78	-0.00	-0.00

*SIGNIFICANT AT .05 OR LESS

TABLE 4-25

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: WRITING ESSAYS, THEMES, POETRY, OR STORIES
(1=NEVER; 4=FREQUENTLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16293	2980504	2.85	0.9	27061	2924015	2.82	0.9	0.93	-0.03	-0.03
SEX:											
MALE	8075	1482943	2.76	0.9	12374	1346264	2.74	0.9	0.92	-0.02	-0.02
FEMALE	8213	1496544	2.93	0.9	13603	1465934	2.91	0.9	0.94	-0.02	-0.02
SES:											
LOW	4654	717878	2.77	1.0	7983	773487	2.66	1.0	0.97	-0.11 *	-0.11
MIDDLE	7765	1524962	2.83	0.9	12350	1375199	2.79	0.9	0.93	-0.04	-0.04
HIGH	3817	727814	2.97	0.8	6009	703739	3.08	0.9	0.86	0.12 *	0.14
RACE:											
WHITE	12642	2487150	2.84	0.9	19255	2295569	2.81	0.9	0.92	-0.03	-0.03
BLACK	2011	242964	3.01	0.9	3511	320564	2.92	1.0	0.95	-0.09 *	-0.10
ASIAN-AMERICAN	188	27232	2.79	0.9	341	37300	2.92	0.9	0.88	0.14	0.16
AMERICAN INDIAN	184	30890	2.74	1.0	209	21261	2.78	1.0	0.99	0.03	0.03
MEXICAN-AMERICAN	533	70046	2.64	1.0	1782	95184	2.70	1.0	0.98	0.06	0.07
PUERTO RICAN	87	8982	2.78	1.0	284	16741	2.90	1.0	0.98	0.12	0.13
OTHER HISPANIC	115	17801	2.75	1.0	914	61729	2.75	1.0	0.97	-0.00	-0.00
SCHOOL TYPE:											
PUBLIC	14599	2643162	2.83	0.9	23597	2627037	2.78	1.0	0.94	-0.05 *	-0.05
PRIVATE	67	16549	3.23	0.7	848	101395	3.29	0.8	0.78	0.07	0.08
CATHOLIC	1015	233645	2.94	0.8	2616	195583	3.05	0.8	0.85	0.11	0.12
GEOGRAPHIC REGION:											
NORTHEAST	3539	789394	2.88	0.9	5454	670748	2.95	0.9	0.88	0.07 *	0.08
NORTH CENTRAL	4488	901841	2.77	0.9	7817	841526	2.68	1.0	0.95	-0.08 *	-0.09
SOUTH	5350	774155	2.97	0.9	8885	884055	2.87	0.9	0.92	-0.10 *	-0.11
WEST	2916	515114	2.74	0.9	4905	527686	2.78	1.0	0.96	0.04	0.04
CURRICULUM:											
GENERAL	5521	945160	2.75	0.9	9863	1069980	2.70	0.9	0.93	-0.05	-0.05
ACADEMIC	6720	1374240	3.02	0.8	10240	1109038	3.15	0.8	0.83	0.13 *	0.16
VOCATIONAL	4051	660800	2.63	1.0	6570	702094	2.49	1.0	0.98	-0.15 *	-0.15
COMMUNITY TYPE:											
URBAN	4443	768967	2.89	0.9	6190	581498	2.87	0.9	0.93	-0.03	-0.03
SUBURBAN	7816	1515929	2.86	0.9	13065	1450137	2.85	0.9	0.93	-0.01	-0.01
RURAL	3601	626060	2.76	0.9	7806	892380	2.74	1.0	0.95	-0.02	-0.02

*SIGNIFICANT AT .05 OR LESS

TABLE 4-26

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: PARTICIPATING IN STUDENT-CENTERED DISCUSSIONS
(1=NEVER; 4=FREQUENTLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16398	2999416	2.73	0.8	27571	2974334	2.67	0.8	0.83	-0.06 *	-0.08
SEX:											
MALE	8120	1491730	2.66	0.8	12612	1371624	2.61	0.8	0.83	-0.05 *	-0.06
FEMALE	8273	1506669	2.81	0.8	13843	1488341	2.73	0.8	0.83	-0.07 *	-0.09
SES:											
LOW	4687	723384	2.67	0.8	8132	784875	2.57	0.9	0.85	-0.10 *	-0.12
MIDDLE	7816	1534994	2.72	0.8	12590	1401819	2.67	0.8	0.82	-0.06 *	-0.07
HIGH	3838	731460	2.82	0.8	6102	714646	2.81	0.8	0.80	-0.01	-0.01
RACE:											
WHITE	12719	2502869	2.73	0.8	19563	2330143	2.68	0.8	0.82	-0.06 *	-0.07
BLACK	2026	244993	2.83	0.9	3580	326875	2.69	0.9	0.88	-0.14 *	-0.16
ASIAN-AMERICAN	189	27292	2.69	0.8	354	38197	2.62	0.9	0.87	-0.07	-0.08
AMERICAN INDIAN	182	30586	2.65	0.8	213	21880	2.58	0.9	0.86	-0.07	-0.08
MEXICAN-AMERICAN	543	71331	2.63	0.8	1832	98373	2.57	0.9	0.88	-0.06	-0.06
PUERTO RICAN	93	9503	2.65	1.0	293	17007	2.58	0.9	0.93	-0.08	-0.08
OTHER HISPANIC	115	17739	2.61	0.9	945	64766	2.66	0.9	0.89	0.05	0.06
SCHOOL TYPE:											
PUBLIC	14691	2659727	2.73	0.8	24060	2673481	2.65	0.8	0.83	-0.07 *	-0.09
PRIVATE	67	16549	2.93	0.7	859	102979	2.94	0.8	0.83	0.01	0.01
CATHOLIC	1023	235156	2.84	0.8	2652	197874	2.78	0.8	0.78	-0.05	-0.07
GEOGRAPHIC REGION:											
NORTHEAST	3559	794939	2.74	0.8	5564	682863	2.67	0.8	0.83	-0.07 *	-0.09
NORTH CENTRAL	4509	905869	2.73	0.8	7937	853289	2.68	0.8	0.81	-0.05	-0.06
SOUTH	5393	781015	2.74	0.8	9053	900335	2.65	0.9	0.85	-0.09 *	-0.11
WEST	2937	517593	2.70	0.8	5017	537847	2.68	0.8	0.83	-0.02	-0.03
CURRICULUM:											
GENERAL	5565	951307	2.65	0.8	10080	1091701	2.59	0.8	0.83	-0.06 *	-0.07
ACADEMIC	6745	1380290	2.85	0.8	10399	1124855	2.81	0.8	0.79	-0.03	-0.04
VOCATIONAL	4087	667517	2.62	0.8	6706	715293	2.57	0.9	0.86	-0.05	-0.06
COMMUNITY TYPE:											
URBAN	4492	777172	2.77	0.8	6326	592471	2.67	0.9	0.85	-0.10 *	-0.12
SUBURBAN	7860	1523507	2.76	0.8	13277	1471795	2.70	0.8	0.82	-0.06 *	-0.07
RURAL	3613	629445	2.64	0.8	7968	910068	2.62	0.8	0.83	-0.02	-0.03

*SIGNIFICANT AT .05 OR LESS

TABLE 4-27

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: WORKING ON A PROJECT OR IN A LABORATORY (1=NEVER; 4=FREQUENTLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16247	2973373	2.48	1.0	27240	2938544	2.37	1.0	1.01	-0.12 *	-0.11
SEX:											
MALE	8056	1480468	2.47	1.0	12445	1352884	2.43	1.0	1.02	-0.04	-0.04
FEMALE	8188	1492349	2.49	1.0	13691	1473332	2.32	1.0	1.00	-0.18 *	-0.18
SES:											
LOW	4615	713052	2.37	1.0	8039	777562	2.22	1.1	1.04	-0.15 *	-0.14
MIDDLE	7765	1524174	2.48	1.0	12448	1385026	2.37	1.0	1.01	-0.11 *	-0.11
HIGH	3815	726835	2.60	0.9	6034	706204	2.55	1.0	0.94	-0.06	-0.06
RACE:											
WHITE	12637	2485739	2.50	1.0	19355	2304562	2.39	1.0	1.00	-0.11 *	-0.11
BLACK	1978	239048	2.42	1.0	3533	323130	2.25	1.0	1.04	-0.18 *	-0.17
ASIAN-AMERICAN	187	27121	2.75	0.9	350	38070	2.64	1.0	0.94	-0.10	-0.11
AMERICAN INDIAN	179	29872	2.41	1.1	206	21368	2.39	1.1	1.08	-0.03	-0.02
MEXICAN-AMERICAN	534	70108	2.31	1.0	1803	96392	2.24	1.0	1.00	-0.07	-0.07
PUERTO RICAN	91	9360	2.22	1.1	287	16693	2.43	1.1	1.10	0.21	0.19
OTHER HISPANIC	117	18067	2.46	1.0	938	64041	2.30	1.1	1.05	-0.16	-0.16
SCHOOL TYPE:											
PUBLIC	14555	2636811	2.48	1.0	23760	2640948	2.36	1.0	1.01	-0.11 *	-0.11
PRIVATE	67	16549	2.31	1.0	847	101168	2.40	1.0	0.97	0.09	0.09
CATHOLIC	1013	232911	2.57	0.9	2633	196428	2.42	0.9	0.94	-0.15 *	-0.16
GEOGRAPHIC REGION:											
NORTHEAST	3529	788068	2.51	1.0	5517	678363	2.45	1.0	1.00	-0.06	-0.06
NORTH CENTRAL	4480	899635	2.54	1.0	7845	843714	2.45	1.0	1.01	-0.10 *	-0.10
SOUTH	5322	771020	2.37	1.0	8912	885308	2.21	1.0	0.99	-0.16 *	-0.17
WEST	2916	514651	2.49	1.0	4966	531160	2.40	1.0	1.03	-0.09 *	-0.09
CURRICULUM:											
GENERAL	5499	940649	2.29	1.0	9949	1076397	2.18	1.0	0.99	-0.11 *	-0.12
ACADEMIC	6703	1371319	2.65	0.9	10313	1115347	2.59	0.9	0.93	-0.06 *	-0.07
VOCATIONAL	4044	661103	2.40	1.1	6590	704310	2.31	1.1	1.11	-0.09 *	-0.09
COMMUNITY TYPE:											
URBAN	4436	768217	2.48	1.0	6238	585131	2.33	1.0	1.02	-0.15 *	-0.15
SUBURBAN	7798	1512560	2.50	1.0	13129	1454780	2.41	1.0	1.00	-0.09 *	-0.09
RURAL	3588	623835	2.47	1.0	7873	898634	2.32	1.0	1.02	-0.15 *	-0.15

*SIGNIFICANT AT .05 OR LESS

TABLE 4-28

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: HAVING INDIVIDUALIZED INSTRUCTION (1=NEVER; 4=FREQUENTLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16313	2983748	1.98	0.9	27600	2977080	2.09	0.9	0.87	0.11 *	0.13
SEX:											
MALE	8091	1486927	1.94	0.8	12639	1373446	2.04	0.9	0.86	0.10 *	0.12
FEMALE	8217	1495804	2.01	0.9	13850	1490713	2.13	0.9	0.88	0.11 *	0.13
SES:											
LOW	4650	717124	2.01	0.9	8143	787667	2.10	0.9	0.90	0.09 *	0.10
MIDDLE	7786	1528158	1.98	0.9	12613	1402637	2.07	0.9	0.87	0.08 *	0.10
HIGH	3820	728606	1.93	0.8	6113	715909	2.11	0.9	0.84	0.19 *	0.22
RACE:											
WHITE	12676	2493254	1.96	0.9	19616	2335861	2.06	0.9	0.86	0.10 *	0.12
BLACK	2000	242122	2.15	0.9	3576	326736	2.22	0.9	0.91	0.07	0.07
ASIAN-AMERICAN	190	27316	2.17	0.9	354	38608	2.10	0.9	0.89	-0.07	-0.07
AMERICAN INDIAN	181	29921	1.97	0.9	213	21880	2.19	0.9	0.94	0.22	0.24
MEXICAN-AMERICAN	532	69614	1.95	0.9	1832	97705	2.15	0.9	0.89	0.19 *	0.22
PUERTO RICAN	88	8989	1.82	0.9	284	16150	2.08	0.9	0.93	0.26	0.28
OTHER HISPANIC	117	17972	2.05	1.0	941	64261	2.11	0.9	0.92	0.06	0.07
SCHOOL TYPE:											
PUBLIC	14624	2648710	1.97	0.9	24087	2676511	2.08	0.9	0.87	0.11 *	0.13
PRIVATE	67	16549	1.83	0.9	861	102736	2.39	0.9	0.90	0.56 *	0.62
CATHOLIC	1013	231924	2.10	0.9	2652	197833	2.07	0.8	0.85	-0.02	-0.03
GEOGRAPHIC REGION:											
NORTHEAST	3539	790179	1.90	0.8	5562	682853	1.99	0.9	0.85	0.09 *	0.11
NORTH CENTRAL	4492	901533	2.01	0.9	7956	855008	2.10	0.9	0.87	0.09 *	0.10
SOUTH	5356	776034	1.98	0.9	9045	899447	2.11	0.9	0.88	0.13 *	0.14
WEST	2926	516001	2.03	0.9	5037	539773	2.16	0.9	0.89	0.12 *	0.14
CURRICULUM:											
GENERAL	5526	945888	1.94	0.9	10076	1091282	2.00	0.9	0.86	0.05 *	0.06
ACADEMIC	6735	1377566	1.97	0.8	10417	1125998	2.13	0.9	0.85	0.16 *	0.18
VOCATIONAL	4051	659991	2.04	0.9	6720	717250	2.16	0.9	0.93	0.12 *	0.13
COMMUNITY TYPE:											
URBAN	4456	771620	2.01	0.9	6301	590509	2.13	0.9	0.90	0.12 *	0.13
SUBURBAN	7820	1516714	1.95	0.8	13322	1475567	2.08	0.9	0.86	0.12 *	0.15
RURAL	3607	627046	2.00	0.9	7977	911004	2.08	0.9	0.88	0.08 *	0.09

*SIGNIFICANT AT .05 OR LESS

TABLE 4-29

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: USING TEACHING MACHINES OR COMPUTER-ASSISTED INSTRUCTION
(1=NEVER; 4=FREQUENTLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16280	2979350	1.48	0.8	27728	2990390	1.62	0.9	0.87	0.15 *	0.17
SEX:											
MALE	8094	1487273	1.39	0.7	12695	1380252	1.58	0.9	0.80	0.19 *	0.24
FEMALE	8181	1491060	1.56	0.9	13912	1495369	1.66	0.9	0.93	0.09 *	0.10
SES:											
LOW	4625	714276	1.52	0.9	8203	792279	1.64	0.9	0.92	0.12 *	0.13
MIDDLE	7775	1526616	1.49	0.8	12650	1407388	1.63	0.9	0.88	0.14 *	0.16
HIGH	3825	728836	1.40	0.7	6130	717732	1.57	0.8	0.80	0.17 *	0.21
RACE:											
WHITE	12664	2491624	1.46	0.8	19652	2340930	1.59	0.9	0.85	0.13 *	0.15
BLACK	1986	240052	1.60	0.9	3617	330047	1.75	1.0	0.98	0.15 *	0.15
ASIAN-AMERICAN	191	27429	1.46	0.8	353	38222	1.55	0.8	0.78	0.09	0.12
AMERICAN INDIAN	180	29703	1.67	0.9	215	22107	1.77	1.1	0.99	0.10	0.10
MEXICAN-AMERICAN	530	69581	1.47	0.8	1853	99277	1.70	1.0	0.94	0.23 *	0.25
PUERTO RICAN	88	9069	1.32	0.7	293	16957	1.87	1.0	0.97	0.55 *	0.57
OTHER HISPANIC	115	17730	1.58	0.9	950	65135	1.69	0.9	0.94	0.11	0.12
SCHOOL TYPE:											
PUBLIC	14599	2644201	1.47	0.8	24203	2687709	1.63	0.9	0.88	0.16 *	0.19
PRIVATE	67	16549	1.32	0.6	864	103684	1.40	0.7	0.70	0.08	0.12
CATHOLIC	1008	232295	1.54	0.8	2661	198997	1.58	0.8	0.83	0.05	0.06
GEOGRAPHIC REGION:											
NORTHEAST	3531	788601	1.50	0.8	5593	686895	1.64	0.9	0.89	0.14 *	0.16
NORTH CENTRAL	4489	902614	1.49	0.8	7976	857177	1.64	0.9	0.87	0.15 *	0.17
SOUTH	5344	773686	1.47	0.8	9106	904839	1.61	0.9	0.88	0.15 *	0.16
WEST	2916	514450	1.43	0.8	5053	541480	1.58	0.9	0.85	0.15 *	0.18
CURRICULUM:											
GENERAL	5525	944944	1.41	0.8	10119	1095445	1.51	0.8	0.81	0.10 *	0.13
ACADEMIC	6715	1374682	1.40	0.7	10450	1130718	1.57	0.8	0.78	0.17 *	0.22
VOCATIONAL	4039	659422	1.73	1.0	6763	720727	1.86	1.1	1.06	0.13 *	0.12
COMMUNITY TYPE:											
URBAN	4440	769800	1.52	0.9	6366	595730	1.67	0.9	0.91	0.15 *	0.16
SUBURBAN	7817	1514582	1.46	0.8	13361	1481119	1.62	0.9	0.86	0.16 *	0.19
RURAL	3595	626438	1.44	0.8	8001	913542	1.58	0.9	0.86	0.14 *	0.16

*SIGNIFICANT AT .05 OR LESS

The average reported frequency of writing essays, themes, poetry or stories did not change between 1972 and 1980. Variations do appear, however, across race, SES, school type and curriculum. Small negative effect sizes are found for low SES (-0.11), Black (-0.10), and vocational (-0.15) students, while small positive effect sizes are shown for high SES (0.14) and academic (0.16) students. High SES students attending Catholic schools (0.33) or enrolled in academic programs (0.26) show even greater increases.

Participation in student-centered discussions had a moderate decrease among low SES students (-0.12) and Blacks (-0.16). Change was greatest for low SES Blacks (-0.21) and low SES students in the South (-0.18).

While the decline in working on a project or in a laboratory showed a mean effect size of -0.12, it is an insignificant -0.04 for males but a significant -0.18 for females. These sex differences are consistent across curricula. A small negative effect size is found for low and middle SES students, for those enrolled in the general curriculum (-0.12), and for students living in the South (-0.14).

Students generally report having individualized instruction more frequently in 1980 than in 1972. The increase was greatest, however, for high SES students, particularly those who are Black (0.38), for students attending private schools (0.62), and for Mexican-Americans (0.22). While the use of teaching machines and computer-assisted instruction is not as widespread as other instructional methods, a small significant effect size was found. This effect differed by gender, SES, race and curriculum.

To summarize, only three of the six instructional approaches had significant changes with a small effect size. Students tended to work on projects or in a laboratory somewhat less frequently in 1980 than in 1972 and to receive individualized instruction or use teaching machines or computer-assisted instruction somewhat more frequently. The largest increases in the latter two categories were found among minority and high SES students. Women were involved less in projects and laboratory work than men in 1980. Although men gained greater access to teaching machines and computer-assisted instruction, they still used these approaches slightly less frequently than women in 1980.

D. STUDENT EVALUATIONS OF SCHOOL FACILITIES AND EDUCATIONAL EXPERIENCES

The student questionnaire provided information about students' perception of the quality of their school and their educational program and about school-related factors that interferred with their education.

1. Student Ratings of Schools

Students answered questions evaluating the condition of school facilities, quality of academic instruction, and reputation of the school in the community. The ratings ranged from 1 = Poor to 4 = Excellent. Table 4-30 summarizes the mean ratings and change measures for five common variables in 1972 and 1980. In 1972, the ratings ranged from 2.99 (good) for reputation of the school in the community to 2.52 (between fair and good)

Table 4-30

Student Ratings of Schools

	Mean Response 1972	Mean Response 1980	Difference 1980-1972	Effect Size
Reputation in Community	2.99	2.86	-0.13*	-0.15
Condition of Buildings and Classrooms	2.86	2.73	-0.12*	-0.15
Quality of Academic Instruction	2.78	2.72	-0.05*	-0.07
Library Facilities	2.74	2.81	0.07*	0.08
Teacher Interest in Students	2.52	2.57	0.05*	0.06

*Significant at .05 or less

for teacher interest in students. Three of the categories--library facilities, quality of instruction, and teacher interest--show little overall change between 1972 and 1980, while two--condition of buildings and reputation of school--have a small negative effect size.

Cross tabulations by the classification variables show some variation in the effect sizes. (See Tables 4-31 through 4-35.) For example, students living in the Northeast report a moderate, negative change in school reputation in the community. The condition of school buildings and classrooms also showed a moderate decline for Other Hispanic students and schools located in the Northeast. While change in the quality of academic instruction was negligible for all students, a small significant decline is found among female students in general (-0.16) and vocational (-0.17) curricula, low SES Whites (-0.15), and low SES students living in suburban (-0.15) communities, in rural (-0.19) communities, and in the South (-0.21). A small significant increase in teacher interest in students is reported by those who are high SES, are enrolled in academic programs, or attend Catholic schools.

2. Student Evaluation of Program

The second set of questions asked students whether their high schools provided them with adequate programs. Table 4-36 summarizes their responses to the following statements:

TABLE 4-31

STUDENT RATING OF SCHOOL: REPUTATION IN COMMUNITY
(1=POOR; 4=EXCELLENT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15352	2811646	2.99	0.9	26251	2835188	2.86	0.9	0.90	-0.13 *	-0.15
SEX:											
MALE	7596	1396787	2.97	0.9	12175	1321000	2.86	0.9	0.91	-0.11 *	-0.12
FEMALE	7751	1413842	3.01	0.9	13330	1438250	2.86	0.9	0.89	-0.15 *	-0.17
SES:											
LOW	4315	667781	2.86	0.9	7587	733707	2.68	0.9	0.90	-0.17 *	-0.19
MIDDLE	7365	1447688	2.99	0.9	12130	1347262	2.86	0.9	0.89	-0.13 *	-0.14
HIGH	3619	687274	3.12	0.9	5969	698497	3.05	0.9	0.88	-0.06 *	-0.07
RACE:											
WHITE	11994	2359262	3.03	0.9	18921	2249808	2.90	0.9	0.88	-0.13 *	-0.15
BLACK	1853	221966	2.70	1.0	3281	298481	2.68	1.0	0.95	-0.02	-0.02
ASIAN-AMERICAN	170	24596	2.73	1.0	332	36579	2.87	0.9	0.94	0.14	0.14
AMERICAN INDIAN	166	28109	2.77	0.9	180	18650	2.63	0.9	0.93	-0.14	-0.15
MEXICAN-AMERICAN	495	64751	2.83	0.9	1718	92791	2.70	0.9	0.93	-0.14	-0.15
PUERTO RICAN	81	8192	2.40	1.0	275	15715	2.67	1.0	0.97	0.27	0.28
OTHER HISPANIC	110	17161	3.00	0.9	898	60427	2.84	0.9	0.92	-0.16	-0.17
SCHOOL TYPE:											
PUBLIC	13736	2488779	2.96	0.9	22829	2542238	2.80	0.9	0.90	-0.16 *	-0.17
PRIVATE	62	15198	3.34	0.7	847	100295	3.21	0.8	0.82	-0.12	-0.15
CATHOLIC	990	227436	3.37	0.8	2575	192655	3.41	0.7	0.74	0.04	0.06
GEOGRAPHIC REGION:											
NORTHEAST	3308	740393	3.04	0.9	5319	655590	2.81	0.9	0.91	-0.24 *	-0.26
NORTH CENTRAL	4240	853750	2.93	0.9	7610	818790	2.87	0.9	0.89	-0.06	-0.07
SOUTH	5098	738302	3.06	0.9	8546	848092	2.89	0.9	0.88	-0.17 *	-0.19
WEST	2706	479201	2.91	0.9	4776	512716	2.85	0.9	0.91	-0.06	-0.07
CURRICULUM:											
GENERAL	5169	883986	2.88	0.9	9460	1021316	2.74	0.9	0.89	-0.14 *	-0.16
ACADEMIC	6394	1307092	3.10	0.9	10154	1098377	3.05	0.9	0.88	-0.05 *	-0.06
VOCATIONAL	3788	620265	2.91	0.9	6273	674802	2.73	0.9	0.90	-0.18 *	-0.20
COMMUNITY TYPE:											
URBAN	4184	726816	2.90	0.9	5959	561356	2.78	1.0	0.95	-0.12 *	-0.13
SUBURBAN	7385	1430696	3.06	0.9	12714	1407914	2.92	0.9	0.89	-0.14 *	-0.15
RURAL	3412	595187	2.95	0.8	7578	865918	2.80	0.9	0.86	-0.15 *	-0.17

*SIGNIFICANT AT .05 OR LESS

TABLE 4-32

STUDENT RATING OF SCHOOL: CONDITION OF BUILDING
(1=POOR; 4=EXCELLENT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16511	3014567	2.86	0.9	27468	2962384	2.73	0.9	0.86	-0.12 *	-0.15
SEX:											
MALE	8188	1502015	2.89	0.9	12703	1379840	2.77	0.9	0.87	-0.11 *	-0.13
FEMALE	8318	1511535	2.83	0.8	13947	1499238	2.71	0.8	0.84	-0.13 *	-0.15
SES:											
LOW	4741	729265	2.74	0.9	8129	784932	2.62	0.9	0.86	-0.11 *	-0.13
MIDDLE	7859	1541683	2.86	0.9	12586	1399480	2.74	0.9	0.86	-0.12 *	-0.14
HIGH	3848	733111	2.98	0.8	6109	715245	2.88	0.8	0.82	-0.10 *	-0.13
RACE:											
WHITE	12766	2511438	2.90	0.9	19574	2330799	2.78	0.8	0.84	-0.12 *	-0.14
BLACK	2072	249769	2.55	0.9	3576	325870	2.50	0.9	0.87	-0.06	-0.07
ASIAN-AMERICAN	190	27039	2.65	0.7	353	38467	2.76	0.8	0.78	0.10	0.13
AMERICAN INDIAN	185	30621	2.82	0.9	204	20961	2.55	0.9	0.92	-0.27	-0.30
MEXICAN-AMERICAN	550	72509	2.74	0.9	1827	97273	2.61	0.8	0.86	-0.12	-0.14
PUERTO RICAN	92	9200	2.54	0.9	295	17101	2.52	0.8	0.82	-0.03	-0.03
OTHER HISPANIC	122	18844	3.01	0.8	938	63734	2.71	0.9	0.85	-0.30 *	-0.36
SCHOOL TYPE:											
PUBLIC	14797	2674234	2.85	0.9	23954	2662393	2.72	0.9	0.86	-0.13 *	-0.15
PRIVATE	67	16549	3.04	0.9	865	103530	2.83	0.8	0.77	-0.21	-0.27
CATHOLIC	1022	234931	3.02	0.8	2649	196460	2.87	0.8	0.79	-0.15 *	-0.19
GEOGRAPHIC REGION:											
NORTHEAST	3582	797143	2.91	0.8	5572	684237	2.69	0.8	0.84	-0.21 *	-0.25
NORTH CENTRAL	4533	910429	2.85	0.9	7920	851412	2.77	0.8	0.86	-0.09 *	-0.10
SOUTH	5437	785716	2.83	0.9	8976	890967	2.75	0.9	0.87	-0.08 *	-0.09
WEST	2959	521280	2.84	0.8	5000	535768	2.71	0.9	0.84	-0.13 *	-0.16
CURRICULUM:											
GENERAL	5603	957822	2.78	0.9	9991	1080186	2.66	0.9	0.86	-0.12 *	-0.14
ACADEMIC	6768	1382246	2.93	0.9	10402	1125119	2.84	0.8	0.84	-0.09 *	-0.11
VOCATIONAL	4139	674197	2.82	0.9	6679	714060	2.68	0.9	0.85	-0.15 *	-0.17
COMMUNITY TYPE:											
URBAN	4517	780706	2.79	0.9	6270	588373	2.63	0.8	0.85	-0.17 *	-0.19
SUBURBAN	7903	1528727	2.93	0.8	13257	1466637	2.79	0.8	0.84	-0.14 *	-0.16
RURAL	3646	633765	2.79	0.9	7941	907373	2.72	0.9	0.88	-0.07 *	-0.08

*SIGNIFICANT AT .05 OR LESS

TABLE 4-33

STUDENT RATING OF SCHOOL: ACADEMIC INSTRUCTION
(1=POOR; 4=EXCELLENT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14937	2749599	2.78	0.8	25781	2790945	2.72	0.8	0.78	-0.05 *	-0.07
SEX:											
MALE	7550	1394345	2.76	0.8	12122	1319515	2.75	0.8	0.80	-0.02	-0.02
FEMALE	7382	1354238	2.79	0.8	12935	1396757	2.71	0.8	0.76	-0.08 *	-0.11
SES:											
LOW	4000	617536	2.69	0.8	7279	704554	2.59	0.8	0.79	-0.10 *	-0.13
MIDDLE	7187	1418905	2.78	0.8	11985	1333255	2.72	0.8	0.77	-0.06 *	-0.08
HIGH	3697	703976	2.84	0.8	5985	700481	2.88	0.8	0.78	0.03	0.04
RACE:											
WHITE	11766	2321659	2.80	0.8	18612	2217775	2.74	0.8	0.77	-0.05 *	-0.07
BLACK	1714	205858	2.67	0.8	3226	293223	2.64	0.8	0.82	-0.03	-0.03
ASIAN-AMERICAN	175	25073	2.79	0.8	339	36801	2.79	0.8	0.78	-0.01	-0.01
AMERICAN INDIAN	162	27388	2.67	0.7	188	19420	2.61	0.9	0.81	-0.06	-0.07
MEXICAN-AMERICAN	473	62255	2.69	0.8	1652	88998	2.63	0.8	0.80	-0.06	-0.08
PUERTO RICAN	73	7323	2.55	0.8	267	15596	2.59	0.8	0.83	0.04	0.04
OTHER HISPANIC	104	16251	2.80	0.9	874	58416	2.67	0.8	0.82	-0.13	-0.15
SCHOOL TYPE:											
PUBLIC	13332	2426346	2.76	0.8	22333	2496783	2.69	0.8	0.77	-0.07 *	-0.09
PRIVATE	65	16012	2.95	0.8	854	101567	3.13	0.8	0.82	0.18	0.22
CATHOLIC	980	226737	3.01	0.8	2594	192595	2.99	0.8	0.80	-0.02	-0.02
GEOGRAPHIC REGION:											
NORTHEAST	3238	731445	2.85	0.8	5246	648292	2.80	0.8	0.77	-0.05	-0.06
NORTH CENTRAL	4153	836726	2.75	0.8	7485	806660	2.70	0.8	0.77	-0.05	-0.06
SOUTH	4842	702701	2.75	0.8	8354	827940	2.68	0.8	0.80	-0.07 *	-0.09
WEST	2704	478728	2.75	0.8	4696	508053	2.73	0.8	0.78	-0.02	-0.02
CURRICULUM:											
GENERAL	4883	834600	2.64	0.8	9209	998259	2.55	0.8	0.77	-0.09 *	-0.12
ACADEMIC	6580	1345808	2.89	0.8	10214	1106129	2.94	0.8	0.75	0.05 *	0.06
VOCATIONAL	3473	568888	2.70	0.8	6005	646761	2.63	0.8	0.78	-0.07 *	-0.09
COMMUNITY TYPE:											
URBAN	4080	709043	2.80	0.8	5794	545930	2.75	0.8	0.78	-0.05	-0.07
SUBURBAN	7237	1411969	2.80	0.8	12577	1393350	2.77	0.8	0.78	-0.03	-0.04
RURAL	3262	570747	2.70	0.8	7410	851665	2.63	0.8	0.78	-0.06 *	-0.08

*SIGNIFICANT AT .05 OR LESS

TABLE 4-34

STUDENT RATING OF SCHOOL: LIBRARY
(1=POOR; 4=EXCELLENT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16249	2975642	2.74	0.9	27162	2931239	2.81	0.9	0.86	0.07 *	0.08
SEX:											
MALE	8070	1484003	2.75	0.9	12573	1365851	2.82	0.9	0.87	0.07 *	0.08
FEMALE	8174	1490623	2.72	0.8	13788	1483232	2.80	0.8	0.85	0.08 *	0.09
SES:											
LOW	4634	714745	2.79	0.8	8028	774977	2.83	0.9	0.85	0.04	0.05
MIDDLE	7731	1521111	2.73	0.9	12441	1384000	2.81	0.9	0.86	0.08 *	0.10
HIGH	3824	729557	2.71	0.9	6066	710499	2.80	0.9	0.87	0.09 *	0.10
RACE:											
WHITE	12613	2484536	2.73	0.9	19362	2304966	2.81	0.9	0.85	0.08 *	0.10
BLACK	1994	241271	2.75	0.8	3524	322085	2.81	0.9	0.87	0.06	0.07
ASIAN-AMERICAN	190	27291	2.71	0.9	351	38334	2.76	0.8	0.87	0.05	0.06
AMERICAN INDIAN	180	29863	2.76	0.9	204	21005	2.69	0.9	0.89	-0.07	-0.08
MEXICAN-AMERICAN	534	70481	2.92	0.9	1809	96661	2.79	0.8	0.85	-0.12	-0.15
PUERTO RICAN	91	9314	2.82	0.9	289	16845	2.84	0.8	0.85	0.02	0.03
OTHER HISPANIC	117	18156	2.97	0.8	929	63176	2.80	0.9	0.87	-0.17	-0.19
SCHOOL TYPE:											
PUBLIC	14560	2638684	2.75	0.9	23674	2633000	2.83	0.9	0.85	0.08 *	0.10
PRIVATE	67	16549	2.85	0.9	860	102852	2.57	1.0	0.96	-0.28	-0.29
CATHOLIC	1015	233666	2.55	0.8	2628	195388	2.63	0.9	0.86	0.08	0.09
GEOGRAPHIC REGION:											
NORTHEAST	3527	788512	2.73	0.9	5475	674148	2.78	0.9	0.86	0.06	0.07
NORTH CENTRAL	4455	896157	2.72	0.8	7833	843781	2.84	0.8	0.85	0.12 *	0.14
SOUTH	5357	776088	2.76	0.9	8891	831738	2.81	0.9	0.88	0.05	0.06
WEST	2910	514886	2.75	0.9	4963	531572	2.80	0.8	0.85	0.05	0.06
CURRICULUM:											
GENERAL	5529	946807	2.76	0.9	9873	1067174	2.79	0.9	0.86	0.03	0.04
ACADEMIC	6719	1375090	2.69	0.9	10347	1119592	2.79	0.9	0.87	0.10 *	0.12
VOCATIONAL	4000	653443	2.82	0.8	6555	702222	2.88	0.8	0.84	0.06 *	0.07
COMMUNITY TYPE:											
URBAN	4439	769061	2.79	0.8	6189	582448	2.83	0.9	0.85	0.04	0.05
SUBURBAN	7771	1508063	2.74	0.9	13098	1449792	2.84	0.8	0.85	0.10 *	0.12
RURAL	3613	629695	2.68	0.9	7875	898999	2.75	0.9	0.88	0.07 *	0.08

*SIGNIFICANT AT .05 OR LESS

TABLE 4-35

STUDENT RATING OF SCHOOL: TEACHER INTEREST IN STUDENTS
(1=POOR; 4=EXCELLENT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16209	2966051	2.52	0.9	27021	2917070	2.57	0.9	0.88	0.05 *	0.06
SEX:											
MALE	7993	1469767	2.51	0.9	12469	1357179	2.59	0.9	0.88	0.08 *	0.10
FEMALE	8211	1495267	2.54	0.9	13765	1479368	2.56	0.9	0.87	0.02	0.03
SES:											
LOW	4637	716112	2.52	0.9	7959	770254	2.49	0.9	0.87	-0.03	-0.03
MIDDLE	7730	1518674	2.51	0.9	12390	1377113	2.55	0.9	0.88	0.04	0.05
HIGH	3784	721141	2.55	0.9	6053	708836	2.73	0.9	0.86	0.18 *	0.20
RACE:											
WHITE	12581	2476375	2.53	0.9	19322	2300553	2.59	0.9	0.87	0.06 *	0.07
BLACK	2007	242321	2.47	0.9	3475	316935	2.49	0.9	0.88	0.02	0.02
ASIAN-AMERICAN	186	26769	2.64	0.9	353	38316	2.66	0.9	0.87	0.01	0.01
AMERICAN INDIAN	181	29840	2.31	1.0	196	20224	2.47	0.9	0.93	0.16	0.17
MEXICAN-AMERICAN	523	69423	2.49	0.9	1795	96541	2.54	0.9	0.88	0.06	0.07
PUERTO RICAN	92	9450	2.51	1.0	288	16640	2.66	0.9	0.92	0.15	0.16
OTHER HISPANIC	115	17719	2.61	0.8	918	61550	2.58	0.9	0.88	-0.04	-0.04
SCHOOL TYPE:											
PUBLIC	14521	2629142	2.49	0.9	23539	2619766	2.52	0.9	0.87	0.03	0.03
PRIVATE	67	16549	2.95	0.8	861	102922	3.15	0.9	0.87	0.20	0.23
CATHOLIC	1014	233499	2.82	0.9	2621	194382	2.94	0.8	0.86	0.12 *	0.14
GEOGRAPHIC REGION:											
NORTHEAST	3521	785166	2.53	0.9	5475	674136	2.60	0.9	0.87	0.06 *	0.07
NORTH CENTRAL	4443	893979	2.49	0.9	7798	838666	2.53	0.9	0.87	0.05	0.05
SOUTH	5348	774015	2.54	0.9	8827	876689	2.56	0.9	0.89	0.02	0.02
WEST	2897	512891	2.55	0.9	4921	527579	2.63	0.9	0.88	0.09 *	0.10
CURRICULUM:											
GENERAL	5497	940622	2.44	0.9	9787	1058702	2.43	0.9	0.87	-0.01	-0.01
ACADEMIC	6683	1366799	2.61	0.9	10315	1116194	2.78	0.8	0.85	0.17 *	0.20
VOCATIONAL	4028	658327	2.45	0.9	6536	700023	2.47	0.9	0.88	0.02	0.02
COMMUNITY TYPE:											
URBAN	4430	768146	2.54	0.9	6168	579997	2.57	0.9	0.88	0.03	0.03
SUBURBAN	7764	1504751	2.52	0.9	13054	1445125	2.60	0.9	0.87	0.08 *	0.09
RURAL	3589	624367	2.52	0.9	7799	891947	2.53	0.9	0.88	0.01	0.01

*SIGNIFICANT AT .05 OR LESS

Table 4-36

	Mean Response 1972	Mean Response 1980	Difference 1980-1972	Effect Size
My high school should have placed more emphasis on academic subjects.	2.52	2.13	-0.39*	-0.46
My high school did not offer enough practical work experience.	2.13	2.17	0.04*	0.04
My high school should have placed more emphasis on vocational and technical programs.	2.06	1.98	-0.08*	-0.09
My high school provided me with counseling that will help me continue my education.	2.68	2.78	+0.10*	+0.10
My high school provided me with counseling that will help me find employment.	2.16	2.43	+0.27	+0.26

*Significant at .05 or less

The responses ranged from 1 to 4 with 1 showing negative assessment of the high school (agreement with the first three questions and disagreement with the last two) and 4 showing a positive assessment of the high school (disagreement with the first three questions and agreement with the last two). In 1972, students were generally neutral about the scope of the basic academic program and of counseling for further education. They were slightly negative regarding technical education, and counseling to find employment. By 1980, students' assessments of the basic academic program had dropped substantially, but they had become slightly more satisfied with their school's counseling services, especially with regard to finding work.

Cross-tabulations show that growing dissatisfaction with schools' emphasis on basic academic subjects was shared by students of all SES and racial/ethnic groups, and by those enrolled in all three types of schools and three kinds of curriculum. High SES students and those enrolled in Catholic schools reported the largest increase in ratings for education-oriented counseling services, while males, high SES students, and those enrolled in academic programs had the largest positive change for work-oriented counseling. In the latter case, however, the mean rating for these groups still remained substantially below ratings given by low SES and vocational education students in 1980, primarily because of the lower interest in post high school employment among academic students. (See Tables 4-37 through 4-41.)

TABLE 4-37

HIGH SCHOOL SHOULD HAVE PLACED MORE EMPHASIS ON BASIC ACADEMIC SUBJECTS
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14563	2651072	2.52	0.9	25676	2772524	2.13	0.8	0.84	-0.39 *	-0.47
SEX:											
MALE	7217	1319495	2.53	0.9	11689	1273699	2.14	0.8	0.85	-0.38 *	-0.45
FEMALE	7343	1331030	2.51	0.9	13056	1404758	2.12	0.8	0.84	-0.39 *	-0.47
SES:											
LOW	4252	651012	2.38	0.9	7655	739636	2.10	0.8	0.83	-0.28 *	-0.34
MIDDLE	6932	1357913	2.55	0.8	11793	1311942	2.14	0.8	0.83	-0.41 *	-0.49
HIGH	3328	633107	2.60	0.9	5593	659241	2.14	0.9	0.87	-0.46 *	-0.53
RACE:											
WHITE	11220	2200988	2.58	0.8	18220	2175560	2.18	0.8	0.83	-0.40 *	-0.48
BLACK	1869	226743	2.13	0.8	3326	303619	1.91	0.8	0.84	-0.22 *	-0.26
ASIAN-AMERICAN	177	25406	2.29	0.8	348	37796	1.72	0.7	0.77	-0.57 *	-0.74
AMERICAN INDIAN	166	27285	2.32	0.9	193	19626	2.00	0.8	0.84	-0.31 *	-0.37
MEXICAN-AMERICAN	483	63102	2.22	0.8	1737	92082	2.00	0.8	0.81	-0.21 *	-0.26
PUERTO RICAN	84	8715	2.02	0.8	280	16412	1.92	0.8	0.80	-0.10	-0.13
OTHER HISPANIC	104	16107	2.30	0.8	873	60303	2.07	0.8	0.85	-0.23	-0.27
SCHOOL TYPE:											
PUBLIC	13134	2369596	2.51	0.9	22613	2506762	2.09	0.8	0.83	-0.41 *	-0.50
PRIVATE	59	14728	2.83	0.9	715	89019	2.52	1.0	0.96	-0.31	-0.33
CATHOLIC	811	186337	2.72	0.8	2348	176743	2.42	0.9	0.91	-0.30 *	-0.33
GEOGRAPHIC REGION:											
NORTHEAST	3051	679733	2.69	0.8	5132	627024	2.22	0.9	0.86	-0.47 *	-0.55
NORTH CENTRAL	4039	810119	2.54	0.8	7392	801966	2.15	0.8	0.83	-0.40 *	-0.48
SOUTH	4816	692715	2.36	0.9	8431	838976	2.07	0.8	0.83	-0.29 *	-0.35
WEST	2657	468505	2.47	0.9	4721	504559	2.07	0.8	0.83	-0.39 *	-0.48
CURRICULUM:											
GENERAL	5021	855964	2.50	0.9	9416	1019267	2.12	0.8	0.82	-0.38 *	-0.47
ACADEMIC	5839	1192008	2.53	0.9	9585	1041778	2.10	0.9	0.86	-0.42 *	-0.49
VOCATIONAL	3702	602798	2.53	0.9	6307	671559	2.17	0.8	0.84	-0.36 *	-0.43
COMMUNITY TYPE:											
URBAN	3985	687137	2.50	0.9	5882	548538	2.04	0.8	0.84	-0.46 *	-0.55
SUBURBAN	6920	1334139	2.57	0.9	12341	1372281	2.16	0.8	0.85	-0.41 *	-0.48
RURAL	3276	568251	2.44	0.8	7453	851706	2.14	0.8	0.82	-0.31 *	-0.38

*SIGNIFICANT AT .05 OR LESS

TABLE 4-38

HIGH SCHOOL DID NOT OFFER ENOUGH PRACTICAL WORK EXPERIENCE
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14242	2589751	2.13	0.9	24999	2686542	2.17	1.0	0.95	0.04 *	0.04
SEX:											
MALE	6967	1275800	2.09	0.9	11303	1224892	2.14	1.0	0.94	0.04	0.05
FEMALE	7271	1313186	2.17	1.0	12752	1366671	2.21	1.0	0.96	0.04	0.04
SES:											
LOW	4280	657932	2.14	1.0	7643	737647	2.09	1.0	0.96	-0.05	-0.05
MIDDLE	6809	1330381	2.10	0.9	11445	1271496	2.17	1.0	0.95	0.06 *	0.07
HIGH	3107	593439	2.19	0.9	5269	615327	2.29	1.0	0.93	0.10 *	0.11
RACE:											
WHITE	10952	2149796	2.13	0.9	17575	2094280	2.19	1.0	0.94	0.06 *	0.07
BLACK	1840	220657	2.12	1.0	3356	304232	2.04	1.0	1.00	-0.08	-0.08
ASIAN-AMERICAN	153	21530	2.12	0.8	328	35541	2.34	0.9	0.88	0.22	0.25
AMERICAN INDIAN	164	27659	2.21	0.9	197	19773	1.99	0.9	0.90	-0.23	-0.25
MEXICAN-AMERICAN	485	63419	2.27	0.9	1715	90986	2.19	1.0	0.96	-0.09	-0.09
PUERTO RICAN	79	8044	2.20	0.9	276	15832	2.16	1.1	1.03	-0.04	-0.03
OTHER HISPANIC	99	15203	2.28	1.0	867	59958	2.25	1.0	1.00	-0.04	-0.04
SCHOOL TYPE:											
PUBLIC	12754	2296583	2.14	0.9	21832	2416381	2.19	1.0	0.95	0.05 *	0.06
PRIVATE	60	14613	1.93	0.8	731	89578	2.06	1.0	0.95	0.13	0.14
CATHOLIC	872	198996	1.94	0.9	2436	180584	1.93	0.9	0.88	-0.01	-0.01
GEOGRAPHIC REGION:											
NORTHEAST	2986	661154	2.08	0.9	4988	608494	2.07	0.9	0.94	-0.02	-0.02
NORTH CENTRAL	3975	798184	2.08	0.9	7192	774274	2.20	0.9	0.93	0.12 *	0.13
SOUTH	4670	670085	2.18	0.9	8227	814327	2.15	1.0	0.96	-0.03	-0.03
WEST	2611	460328	2.21	1.0	4592	489448	2.29	1.0	0.97	0.08 *	0.08
CURRICULUM:											
GENERAL	4947	843835	2.05	0.9	9269	1001326	2.07	0.9	0.93	0.03	0.03
ACADEMIC	5464	1120364	2.15	0.9	9028	971391	2.27	1.0	0.94	0.12 *	0.13
VOCATIONAL	3831	625553	2.22	1.0	6332	673693	2.17	1.0	1.00	-0.05	-0.05
COMMUNITY TYPE:											
URBAN	3858	663451	2.20	1.0	5729	535756	2.24	1.0	0.98	0.04	0.04
SUBURBAN	6726	1299785	2.14	0.9	11985	1320697	2.21	1.0	0.95	0.07 *	0.08
RURAL	3290	567371	2.04	0.9	7285	830089	2.07	0.9	0.93	0.02	0.03

*SIGNIFICANT AT .05 OR LESS

TABLE 4-39

HIGH SCHOOL SHOULD HAVE PLACED MORE EMPHASIS ON VOCATIONAL AND TECHNICAL PROGRAMS
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14281	2592072	2.06	0.9	25480	2740625	1.98	0.8	0.86	-0.08 *	-0.09
SEX:											
MALE	7112	1296705	2.07	0.9	11684	1268196	1.96	0.9	0.88	-0.11 *	-0.13
FEMALE	7166	1294819	2.05	0.9	12858	1378556	2.01	0.8	0.84	-0.04	-0.04
SES:											
LOW	4254	652942	1.96	0.9	7718	744807	1.80	0.8	0.83	-0.16 *	-0.19
MIDDLE	6838	1332242	2.02	0.9	11676	1297176	1.96	0.8	0.84	-0.06 *	-0.07
HIGH	3146	599238	2.25	0.9	5439	635735	2.25	0.9	0.89	-0.00	-0.00
RACE:											
WHITE	11016	2154293	2.07	0.9	17966	2137957	2.03	0.9	0.86	-0.05 *	-0.06
BLACK	1829	220766	2.00	0.9	3380	307776	1.78	0.8	0.86	-0.23 *	-0.26
ASIAN-AMERICAN	160	22700	1.96	0.8	340	37101	2.00	0.8	0.78	0.04	0.05
AMERICAN INDIAN	163	26889	1.96	0.9	198	20241	1.75	0.8	0.88	-0.21	-0.24
MEXICAN-AMERICAN	486	63639	2.01	0.8	1743	92905	1.86	0.8	0.81	-0.15 *	-0.19
PUERTO RICAN	73	7271	1.94	0.9	270	15842	1.88	0.9	0.88	-0.06	-0.06
OTHER HISPANIC	102	15982	1.93	0.9	882	61360	1.88	0.8	0.83	-0.05	-0.06
SCHOOL TYPE:											
PUBLIC	12823	2306243	2.06	0.9	22333	2469113	1.97	0.8	0.86	-0.09 *	-0.10
PRIVATE	55	12760	2.00	0.9	736	90512	2.07	0.9	0.89	0.07	0.08
CATHOLIC	857	194573	2.07	0.9	2411	180999	2.05	0.9	0.90	-0.02	-0.02
GEOGRAPHIC REGION:											
NORTHEAST	2888	642744	2.08	0.9	5011	611781	2.04	0.9	0.89	-0.04	-0.04
NORTH CENTRAL	4010	806350	2.02	0.9	7318	788035	2.01	0.8	0.85	-0.00	-0.00
SOUTH	4755	679101	2.13	0.9	8418	834827	1.94	0.9	0.87	-0.18 *	-0.21
WEST	2628	463877	2.00	0.9	4733	505981	1.92	0.8	0.81	-0.09 *	-0.11
CURRICULUM:											
GENERAL	4976	851407	1.96	0.8	9430	1018126	1.89	0.8	0.81	-0.07 *	-0.09
ACADEMIC	5491	1119587	2.24	0.9	9242	997488	2.25	0.9	0.88	0.01	0.01
VOCATIONAL	3813	620776	1.87	0.9	6434	684724	1.73	0.8	0.82	-0.13 *	-0.16
COMMUNITY TYPE:											
URBAN	3863	667492	2.09	0.9	5843	546286	1.94	0.8	0.87	-0.15 *	-0.18
SUBURBAN	6757	1298259	2.08	0.9	12236	1349622	2.02	0.9	0.87	-0.05 *	-0.06
RURAL	3310	568896	1.99	0.9	7401	844717	1.94	0.8	0.84	-0.05	-0.06

*SIGNIFICANT AT .05 OR LESS

TABLE 4-40

HIGH SCHOOL PROVIDED ME WITH COUNSELING THAT WILL HELP ME CONTINUE MY EDUCATION (1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14832	2709555	2.68	1.0	26194	2816867	2.78	1.0	0.99	0.10 *	0.10
SEX:											
MALE	7344	1346509	2.67	1.0	11904	1290375	2.79	1.0	0.98	0.12 *	0.12
FEMALE	7484	1362280	2.69	1.0	13332	1431068	2.77	1.0	1.01	0.08 *	0.08
SES:											
LOW	4281	654250	2.80	0.9	7778	747023	2.87	1.0	0.96	0.07 *	0.07
MIDDLE	7003	1379016	2.68	1.0	11915	1323347	2.75	1.0	0.99	0.06 *	0.07
HIGH	3495	666931	2.57	1.0	5861	685426	2.76	1.0	1.02	0.18 *	0.18
RACE:											
WHITE	11389	2248457	2.65	1.0	18482	2199288	2.73	1.0	0.99	0.08 *	0.08
BLACK	1945	235376	2.96	0.9	3492	318064	3.04	1.0	0.98	0.08	0.08
ASIAN-AMERICAN	171	24189	2.79	0.9	349	37721	2.87	1.0	0.93	0.08	0.08
AMERICAN INDIAN	163	27329	2.70	1.0	200	20362	2.78	1.0	1.00	0.08	0.08
MEXICAN-AMERICAN	507	66576	2.88	0.9	1771	94549	2.88	1.0	0.97	0.01	0.01
PUERTO RICAN	87	8898	2.76	1.0	279	16145	2.83	1.0	1.04	0.07	0.06
OTHER HISPANIC	109	16585	2.80	0.9	905	62376	2.90	1.0	0.96	0.10	0.10
SCHOOL TYPE:											
PUBLIC	13285	2401271	2.69	1.0	22837	2531042	2.77	1.0	0.99	0.09 *	0.09
PRIVATE	61	15111	2.82	0.9	806	95251	2.99	1.0	1.02	0.17	0.16
CATHOLIC	911	211000	2.60	1.0	2551	190574	2.84	1.0	1.01	0.24 *	0.24
GEOGRAPHIC REGION:											
NORTHEAST	3184	713869	2.62	1.0	5263	645005	2.75	1.0	1.02	0.13 *	0.13
NORTH CENTRAL	4070	817119	2.66	0.9	7516	807355	2.71	1.0	0.98	0.05	0.05
SOUTH	4926	710955	2.80	1.0	8594	849958	2.89	1.0	0.98	0.08 *	0.09
WEST	2652	467613	2.63	1.0	4821	514549	2.75	1.0	1.00	0.12 *	0.12
CURRICULUM:											
GENERAL	4920	838805	2.59	0.9	9419	1015026	2.69	1.0	0.99	0.10 *	0.10
ACADEMIC	6287	1285162	2.73	1.0	10127	1095671	2.86	1.0	1.00	0.13 *	0.13
VOCATIONAL	3624	585285	2.72	1.0	6277	666112	2.79	1.0	0.97	0.08 *	0.08
COMMUNITY TYPE:											
URBAN	4078	706524	2.70	1.0	6032	563624	2.79	1.0	1.01	0.09 *	0.09
SUBURBAN	7105	1377865	2.65	1.0	12643	1397549	2.76	1.0	1.00	0.11 *	0.11
RURAL	3266	562974	2.74	0.9	7519	855694	2.81	1.0	0.98	0.06	0.07

*SIGNIFICANT AT .05 OR LESS

TABLE 4-41

HIGH SCHOOL PROVIDED ME WITH COUNSELING THAT WILL HELP ME FIND EMPLOYMENT
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	13547	2466444	2.16	1.0	24229	2598298	2.43	1.0	1.03	0.27 *	0.26
SEX:											
MALE	6701	1228967	2.10	1.0	10889	1178007	2.43	1.0	1.01	0.33 *	0.33
FEMALE	6842	1236711	2.21	1.0	12418	1326860	2.40	1.0	1.04	0.19 *	0.19
SES:											
LOW	4169	639252	2.46	1.0	7468	717622	2.64	1.0	1.02	0.18 *	0.17
MIDDLE	6449	1268634	2.14	1.0	11109	1233822	2.39	1.0	1.02	0.26 *	0.25
HIGH	2882	550204	1.84	0.9	5028	585892	2.21	1.0	0.97	0.37 *	0.38
RACE:											
WHITE	10278	2026572	2.10	1.0	16865	2003282	2.36	1.0	1.01	0.26 *	0.26
BLACK	1868	226320	2.56	1.0	3383	309714	2.71	1.1	1.08	0.15 *	0.14
ASIAN-AMERICAN	159	22971	2.01	0.9	306	33988	2.49	1.0	0.97	0.48 *	0.50
AMERICAN INDIAN	151	25247	2.30	1.1	193	19447	2.54	1.1	1.07	0.24	0.22
MEXICAN-AMERICAN	463	60867	2.42	0.9	1695	91709	2.62	1.0	1.00	0.19 *	0.19
PUERTO RICAN	81	8163	2.31	1.1	268	15643	2.53	1.0	1.05	0.22	0.21
OTHER HISPANIC	101	15263	2.36	1.0	845	58981	2.62	1.0	0.98	0.26	0.27
SCHOOL TYPE:											
PUBLIC	12149	2192937	2.15	1.0	21243	2346032	2.45	1.0	1.02	0.30 *	0.29
PRIVATE	49	11383	1.83	0.8	675	82425	2.19	1.0	1.00	0.35	0.35
CATHOLIC	806	184845	2.04	1.0	2311	169841	2.20	1.0	1.00	0.17 *	0.17
GEOGRAPHIC REGION:											
NORTHEAST	2834	628598	2.06	1.0	4831	585642	2.33	1.1	1.04	0.27 *	0.26
NORTH CENTRAL	3746	755770	2.12	1.0	6944	746746	2.38	1.0	1.00	0.25 *	0.25
SOUTH	4537	652489	2.35	1.0	7988	790473	2.57	1.0	1.04	0.23 *	0.22
WEST	2430	429586	2.06	1.0	4466	475438	2.38	1.0	1.00	0.32 *	0.32
CURRICULUM:											
GENERAL	4690	804946	2.13	1.0	8923	961542	2.38	1.0	1.01	0.26 *	0.25
ACADEMIC	5213	1067245	1.95	0.9	8756	940574	2.26	1.0	0.98	0.32 *	0.32
VOCATIONAL	3643	593950	2.57	1.0	6180	656360	2.71	1.0	1.04	0.14 *	0.14
COMMUNITY TYPE:											
URBAN	3727	644511	2.17	1.0	5658	527550	2.51	1.1	1.05	0.33 *	0.32
SUBURBAN	6382	1232775	2.09	1.0	11545	1273681	2.35	1.0	1.02	0.26 *	0.26
RURAL	3087	532065	2.28	1.0	7026	797067	2.49	1.0	1.01	0.21 *	0.21

*SIGNIFICANT AT .05 OR LESS

3. Factors Interfering with Education

The final set of questions asked students how much of each four factors had interferred with their education. Using a rating scale of 1 = A Great Deal to 3 = Not At All, they reported the following:

Table 4-42

	Mean Response		Difference	Effect
	1972	1980	1980-1972	Size
Found it hard to adjust to school routine	2.70	2.64	-0.06*	-0.10
Courses were too hard	2.56	2.48	-0.08*	-0.15
Poor teaching	2.40	2.29	-0.11*	-0.17
Poor study habits	2.30	2.12	-0.18*	-0.28

*Significant at .05 or less

In 1972, the responses tended to fall between Somewhat and Not At All, with poor study habits causing the most interference. All four factors became more of a problem between 1972 and 1980, particularly poor study habits. High SES Blacks (-.41) and students attending Catholic schools (-0.34) showed moderate negative effect sizes for difficult courses. Academic (-0.09) and Black students (-0.07) reported the smallest increase in poor teaching as a cause of educational problems. Poor study habits interfered with students' education more in 1980 than in 1972, but particularly so for women (-0.35) and high SES Blacks (-.43) and students attending Catholic schools. (See Tables 4-43 through 4-46.)

In summary, student evaluations of school facilities and of their educational experiences generally became more negative between 1972 and 1980. The variables that showed a small negative change were the condition of school buildings and classrooms, the reputation of the school in the community, and teaching and course difficulty as factors interfering with students' education. Study habits and adequate emphasis on basic academic subjects had moderate negative effect sizes. The factors which showed improvement were adequacy of high school counseling for (1) future educational plans and (2) for future occupational plans.

TABLE 4-43

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: FIND IT HARD TO ADJUST TO SCHOOL ROUTINE
(1=A GREAT DEAL; 3=NOT AT ALL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16395	2999461	2.70	0.6	27429	2958855	2.64	0.6	0.58	-0.06 *	-0.10
SEX:											
MALE	8131	1493920	2.65	0.6	12683	1379363	2.59	0.6	0.61	-0.06 *	-0.10
FEMALE	8260	1504776	2.75	0.5	13915	1495280	2.70	0.6	0.55	-0.05 *	-0.09
SES:											
LOW	4691	724090	2.69	0.6	8150	786518	2.61	0.6	0.59	-0.08 *	-0.13
MIDDLE	7810	1534093	2.71	0.6	12562	1397555	2.66	0.6	0.57	-0.05 *	-0.08
HIGH	3838	731438	2.70	0.6	6083	712718	2.67	0.6	0.58	-0.04	-0.06
RACE:											
WHITE	12718	2502673	2.71	0.6	19545	2327420	2.65	0.6	0.57	-0.06 *	-0.11
BLACK	2020	244782	2.62	0.6	3566	324911	2.64	0.6	0.60	0.02	0.04
ASIAN-AMERICAN	192	27654	2.73	0.5	356	38404	2.68	0.5	0.54	-0.05	-0.09
AMERICAN INDIAN	183	30799	2.67	0.6	206	20962	2.46	0.7	0.63	-0.22	-0.34
MEXICAN-AMERICAN	535	70078	2.75	0.5	1829	98079	2.63	0.6	0.56	-0.12 *	-0.21
PUERTO RICAN	93	9422	2.67	0.5	293	17111	2.61	0.6	0.57	-0.06	-0.11
OTHER HISPANIC	117	17912	2.67	0.6	932	63380	2.57	0.6	0.62	-0.10	-0.16
SCHOOL TYPE:											
PUBLIC	14697	2661722	2.70	0.6	23929	2659016	2.64	0.6	0.58	-0.06 *	-0.09
PRIVATE	67	16549	2.74	0.6	860	103441	2.62	0.6	0.61	-0.12	-0.20
CATHOLIC	1019	234059	2.72	0.5	2640	196398	2.68	0.5	0.54	-0.04	-0.08
GEOGRAPHIC REGION:											
NORTHEAST	3565	796392	2.68	0.6	5552	682668	2.65	0.6	0.59	-0.03	-0.04
NORTH CENTRAL	4512	906379	2.69	0.6	7893	848459	2.64	0.6	0.59	-0.05 *	-0.09
SOUTH	5377	778053	2.72	0.6	8981	892084	2.66	0.6	0.56	-0.06 *	-0.11
WEST	2941	518637	2.71	0.6	5003	535644	2.61	0.6	0.59	-0.10 *	-0.17
CURRICULUM:											
GENERAL	5550	950522	2.64	0.6	9972	1078816	2.59	0.6	0.62	-0.05 *	-0.09
ACADEMIC	6749	1380198	2.75	0.5	10368	1122030	2.72	0.5	0.53	-0.03	-0.05
VOCATIONAL	4095	668439	2.68	0.6	6690	714627	2.61	0.6	0.59	-0.07 *	-0.12
COMMUNITY TYPE:											
URBAN	4485	776295	2.71	0.6	6257	586688	2.65	0.6	0.57	-0.06 *	-0.10
SUBURBAN	7844	1520768	2.69	0.6	13239	1466726	2.63	0.6	0.59	-0.06 *	-0.11
RURAL	3638	633242	2.73	0.5	7933	905442	2.67	0.6	0.55	-0.06 *	-0.12

*SIGNIFICANT AT .05 OR LESS

TABLE 4-44

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: COURSES ARE TOO HARD
(1=A GREAT DEAL; 3=NOT AT ALL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16502	3015571	2.56	0.5	27472	2963821	2.48	0.6	0.55	-0.08 *	-0.15
SEX:											
MALE	8184	1502239	2.54	0.5	12697	1380744	2.47	0.6	0.56	-0.07 *	-0.13
FEMALE	8314	1512566	2.57	0.5	13945	1498719	2.48	0.5	0.54	-0.09 *	-0.16
SES:											
LOW	4742	729602	2.52	0.5	8172	789459	2.43	0.6	0.56	-0.09 *	-0.16
MIDDLE	7852	1542403	2.54	0.5	12582	1399375	2.48	0.6	0.55	-0.06 *	-0.10
HIGH	3849	733231	2.63	0.5	6091	713572	2.52	0.5	0.53	-0.11 *	-0.20
RACE:											
WHITE	12775	2513406	2.57	0.5	19569	2330352	2.48	0.6	0.55	-0.08 *	-0.15
BLACK	2052	247842	2.52	0.6	3578	326182	2.48	0.6	0.56	-0.04	-0.07
ASIAN-AMERICAN	192	27654	2.55	0.5	355	38265	2.39	0.5	0.54	-0.16	-0.29
AMERICAN INDIAN	186	31022	2.47	0.6	204	20723	2.47	0.6	0.56	-0.01	-0.02
MEXICAN-AMERICAN	545	71578	2.50	0.5	1837	98766	2.39	0.6	0.56	-0.12 *	-0.21
PUERTO RICAN	94	9571	2.52	0.5	291	17117	2.41	0.6	0.60	-0.11	-0.18
OTHER HISPANIC	119	18392	2.45	0.6	938	63862	2.44	0.5	0.54	-0.01	-0.02
SCHOOL TYPE:											
PUBLIC	14791	2675578	2.55	0.5	23968	2663773	2.48	0.6	0.55	-0.07 *	-0.13
PRIVATE	67	16549	2.70	0.5	862	103193	2.51	0.6	0.55	-0.19	-0.34
CATHOLIC	1025	235324	2.59	0.5	2642	196854	2.40	0.6	0.55	-0.19 *	-0.34
GEOGRAPHIC REGION:											
NORTHEAST	3586	799579	2.53	0.5	5559	683774	2.47	0.6	0.55	-0.07 *	-0.13
NORTH CENTRAL	4530	909850	2.55	0.5	7913	851502	2.46	0.6	0.55	-0.08 *	-0.15
SOUTH	5429	784735	2.56	0.5	8995	892835	2.48	0.6	0.56	-0.08 *	-0.14
WEST	2957	521407	2.60	0.5	5005	535710	2.49	0.5	0.54	-0.10 *	-0.19
CURRICULUM:											
GENERAL	5595	957014	2.51	0.6	9997	1081797	2.43	0.6	0.56	-0.08 *	-0.14
ACADEMIC	6773	1384629	2.60	0.5	10376	1122726	2.54	0.5	0.53	-0.06 *	-0.12
VOCATIONAL	4133	673625	2.52	0.6	6698	715529	2.44	0.6	0.56	-0.08 *	-0.14
COMMUNITY TYPE:											
URBAN	4508	778865	2.56	0.5	6267	587987	2.50	0.6	0.55	-0.06 *	-0.11
SUBURBAN	7902	1529991	2.56	0.5	13255	1468065	2.46	0.6	0.55	-0.09 *	-0.17
RURAL	3655	635907	2.56	0.5	7950	907768	2.48	0.6	0.55	-0.08 *	-0.14

*SIGNIFICANT AT .05 OR LESS

TABLE 4-45

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: POOR TEACHING (1=A GREAT DEAL; 3=NOT AT ALL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16354	2991378	2.40	0.7	27380	2953544	2.29	0.7	0.66	-0.11 *	-0.17
SEX:											
MALE	8103	1489272	2.39	0.7	12656	1375883	2.28	0.7	0.67	-0.11 *	-0.16
FEMALE	8247	1501341	2.40	0.7	13906	1495052	2.29	0.6	0.64	-0.11 *	-0.18
SES:											
LOW	4682	722237	2.47	0.7	8118	784108	2.36	0.7	0.65	-0.11 *	-0.16
MIDDLE	7788	1529764	2.40	0.7	12549	1395527	2.27	0.7	0.66	-0.13 *	-0.20
HIGH	3826	729303	2.33	0.7	6082	712341	2.25	0.6	0.65	-0.08 *	-0.12
RACE:											
WHITE	12694	2496925	2.40	0.7	19534	2326021	2.27	0.6	0.65	-0.13 *	-0.19
BLACK	2014	244339	2.45	0.7	3551	323462	2.40	0.7	0.66	-0.05	-0.07
ASIAN-AMERICAN	188	27022	2.32	0.7	356	38462	2.21	0.7	0.68	-0.10	-0.15
AMERICAN INDIAN	184	30776	2.35	0.7	201	20545	2.29	0.7	0.71	-0.06	-0.09
MEXICAN-AMERICAN	535	70230	2.46	0.7	1827	97815	2.38	0.6	0.63	-0.08	-0.12
PUERTO RICAN	93	9503	2.37	0.7	287	16483	2.36	0.7	0.67	-0.00	-0.01
OTHER HISPANIC	118	18111	2.43	0.7	935	63543	2.35	0.7	0.66	-0.09	-0.13
SCHOOL TYPE:											
PUBLIC	14652	2653569	2.39	0.7	23881	2653821	2.28	0.7	0.66	-0.11 *	-0.17
PRIVATE	67	16549	2.54	0.6	861	103222	2.42	0.6	0.62	-0.12	-0.19
CATHOLIC	1016	233260	2.41	0.7	2638	196501	2.33	0.6	0.65	-0.08	-0.12
GEOGRAPHIC REGION:											
NORTHEAST	3555	794004	2.38	0.6	5539	680914	2.24	0.6	0.64	-0.14 *	-0.21
NORTH CENTRAL	4498	903913	2.40	0.7	7893	849714	2.27	0.6	0.65	-0.13 *	-0.20
SOUTH	5372	776911	2.41	0.7	8960	889146	2.33	0.7	0.67	-0.08 *	-0.12
WEST	2929	516551	2.39	0.7	4988	533770	2.30	0.7	0.66	-0.09 *	-0.14
CURRICULUM:											
GENERAL	5528	946465	2.41	0.7	9964	1078429	2.26	0.7	0.67	-0.15 *	-0.22
ACADEMIC	6740	1378058	2.36	0.7	10360	1119637	2.30	0.6	0.64	-0.06 *	-0.09
VOCATIONAL	4085	666552	2.45	0.7	6661	712216	2.31	0.7	0.67	-0.15 *	-0.22
COMMUNITY TYPE:											
URBAN	4476	774040	2.39	0.7	6236	584847	2.31	0.6	0.65	-0.08 *	-0.12
SUBURBAN	7828	1517219	2.38	0.7	13227	1465326	2.27	0.7	0.66	-0.12 *	-0.18
RURAL	3627	631456	2.44	0.7	7917	903370	2.31	0.7	0.65	-0.14 *	-0.21

*SIGNIFICANT AT .05 OR LESS

TABLE 4-46

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: POOR STUDY HABITS
(1=A GREAT DEAL; 3=NOT AT ALL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16398	2997534	2.30	0.7	27417	2956796	2.12	0.7	0.67	-0.18 *	-0.28
SEX:											
MALE	8121	1491171	2.19	0.7	12666	1376636	2.04	0.7	0.67	-0.15 *	-0.22
FEMALE	8273	1505597	2.42	0.6	13926	1496954	2.19	0.7	0.65	-0.23 *	-0.35
SES:											
LOW	4705	725472	2.32	0.7	8139	784817	2.16	0.7	0.66	-0.16 *	-0.24
MIDDLE	7802	1531545	2.30	0.7	12563	1397610	2.11	0.7	0.67	-0.19 *	-0.29
HIGH	3835	730992	2.29	0.7	6083	712694	2.10	0.7	0.68	-0.20 *	-0.29
RACE:											
WHITE	12710	2499942	2.30	0.7	19541	2327143	2.11	0.7	0.67	-0.20 *	-0.29
BLACK	2031	245402	2.36	0.6	3564	324188	2.20	0.7	0.66	-0.16 *	-0.25
ASIAN-AMERICAN	189	27119	2.20	0.7	355	38304	2.15	0.6	0.68	-0.06	-0.08
AMERICAN INDIAN	182	30683	2.29	0.6	204	20722	2.14	0.7	0.70	-0.15	-0.21
MEXICAN-AMERICAN	538	70869	2.29	0.6	1828	97694	2.16	0.6	0.64	-0.13 *	-0.20
PUERTO RICAN	95	9676	2.29	0.7	290	16647	2.27	0.7	0.67	-0.02	-0.03
OTHER HISPANIC	118	18229	2.33	0.7	935	63713	2.19	0.7	0.67	-0.15	-0.22
SCHOOL TYPE:											
PUBLIC	14700	2659887	2.30	0.7	23918	2657651	2.12	0.7	0.67	-0.18 *	-0.27
PRIVATE	67	16549	2.32	0.6	858	102554	2.16	0.7	0.66	-0.16	-0.24
CATHOLIC	1018	233636	2.33	0.7	2641	196591	2.10	0.7	0.67	-0.23 *	-0.34
GEOGRAPHIC REGION:											
NORTHEAST	3561	795129	2.31	0.7	5550	681553	2.14	0.7	0.67	-0.17 *	-0.25
NORTH CENTRAL	4504	904508	2.29	0.7	7895	849659	2.10	0.7	0.67	-0.20 *	-0.29
SOUTH	5397	780558	2.33	0.7	8971	890197	2.15	0.7	0.67	-0.18 *	-0.27
WEST	2936	517339	2.28	0.7	5001	535387	2.08	0.7	0.67	-0.20 *	-0.29
CURRICULUM:											
GENERAL	5554	950808	2.22	0.7	9979	1079444	2.04	0.7	0.68	-0.18 *	-0.26
ACADEMIC	6745	1378124	2.35	0.7	10362	1120683	2.17	0.7	0.66	-0.18 *	-0.26
VOCATIONAL	4098	668300	2.34	0.7	6670	712706	2.16	0.7	0.66	-0.18 *	-0.27
COMMUNITY TYPE:											
URBAN	4485	774994	2.31	0.7	6264	587086	2.16	0.7	0.66	-0.15 *	-0.23
SUBURBAN	7847	1520250	2.29	0.7	13239	1466545	2.09	0.7	0.67	-0.20 *	-0.30
RURAL	3638	632990	2.32	0.7	7914	903165	2.13	0.7	0.67	-0.19 *	-0.28

*SIGNIFICANT AT .05 OR LESS

CHAPTER V

CHANGES IN TESTED ACHIEVEMENT AND SCHOOL GRADES

This chapter deals with changes in measured achievement of high school seniors from 1972 to 1980. The two achievement areas that will be discussed here are tested achievement and school achievement as reflected in high school grades. These two measures of achievement are particularly important since in theory they should provide corroborative evidence for either stability or change in educational outcomes over this eight-year period. If changes in test scores parallel changes in grades, both in direction and size, then one can feel relatively assured that there is at least a consistency between an objective external standard (test scores) and a more subjective internal standard (grades). Conversely, if the test scores and grades change in opposing directions, one suspects that there has been a change in school standards. This interpretation, of course, assumes that the test scores are either identical or properly equated across administrations.

The tables presented in this chapter show comparisons of 1972 and 1980 means by total population and by the standard subpopulation classification variables. Differences between the 1980 and 1972 test score means are shown in the formula-corrected number-right true score metric and by effect size. The formula-corrected number-right true scores are on the same scale as the formula-corrected raw scores and thus can be interpreted in the same way.

A. COMPARISONS OF 1972 AND 1980 SENIOR VOCABULARY TEST SCORES

Inspection of Table 5-1 indicates there was a decline in Vocabulary scores from 1972 to 1980 of .85 of a test score point or 22 percent of a standard deviation. The typical senior in 1980 (a student at the 50th percentile) would rank at about the 41st percentile among the 1972 seniors in Vocabulary. A closer look at the subpopulations indicates the groups that contributed disproportionally to the observed decline. Females declined more than males. Whites declined more than Blacks. The greater decline for women was of sufficient magnitude to reverse what was, in 1972, a measured superiority for females compared to males on Vocabulary to a slight inferiority in 1980. The considerably greater decline of Whites when compared to Blacks reduced the disparity between Whites and Blacks in IRT scale score units, but the two groups are still almost a standard deviation apart.

The decline is relatively consistent across SES levels with a slight increase in decline as one goes up the SES ladder. Part of this increasing decline with higher levels of SES may be due to the possibility of floor effects at the lower SES levels.

The decline is consistent across geographic areas, but there appears to be some differential rate of decline when comparisons are made by

Table 5-1

IRT VOCABULARY FORMULA SCORE
(SCALED TO NLS VOCABULARY TEST)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15696	2860438	6.55	4.0	24936	2666481	5.70	3.7	3.79	-0.85 *	-0.22
SEX:											
MALE	7804	1425843	6.44	4.0	11374	1218450	5.90	3.7	3.82	-0.54 *	-0.14
FEMALE	7887	1433577	6.67	4.0	12657	1355969	5.69	3.6	3.76	-0.98 *	-0.26
SES:											
LOW	4491	693845	4.59	3.6	7369	707354	4.05	3.1	3.32	-0.53 *	-0.16
MIDDLE	7486	1460802	6.52	3.8	11474	1269007	5.77	3.4	3.57	-0.75 *	-0.21
HIGH	3663	695762	8.63	3.8	5457	627386	7.71	3.6	3.70	-0.93 *	-0.25
RACE:											
WHITE	12174	2383015	7.08	3.9	17862	2110778	6.24	3.6	3.71	-0.84 *	-0.23
BLACK	1927	234726	3.28	3.0	3173	285008	3.20	2.8	2.90	-0.08	-0.03
ASIAN-AMERICAN	182	25667	6.72	4.2	320	33726	5.87	3.9	4.05	-0.85	-0.21
AMERICAN INDIAN	181	29787	4.04	3.5	200	20114	4.18	3.1	3.33	0.14	0.04
MEXICAN-AMERICAN	516	68274	3.47	2.9	1620	83936	3.50	3.0	2.95	0.03	0.01
PUERTO RICAN	84	8376	3.80	3.0	264	14218	3.52	3.0	3.03	-0.28	-0.09
OTHER HISPANIC	112	17322	4.64	3.4	856	56930	3.76	2.9	3.00	-0.87	-0.29
SCHOOL TYPE:											
PUBLIC	14097	2540625	6.44	4.0	21677	2399504	5.52	3.6	3.76	-0.92 *	-0.24
PRIVATE	66	16235	7.88	3.8	736	84461	7.80	4.0	4.03	-0.08	-0.02
CATHOLIC	990	224332	8.24	3.7	2523	182516	7.06	3.5	3.56	-1.17 *	-0.33
GEOGRAPHIC REGION:											
NORTHEAST	3493	777868	7.33	4.0	5013	609829	6.48	3.8	3.88	-0.86 *	-0.22
NORTH CENTRAL	4089	831402	6.58	3.9	7301	785432	5.85	3.5	3.66	-0.74 *	-0.20
SOUTH	5334	773440	5.63	3.9	8208	806215	4.84	3.5	3.68	-0.80 *	-0.22
WEST	2780	477727	6.71	4.0	4414	465005	5.94	3.6	3.79	-0.77 *	-0.20
CURRICULUM:											
GENERAL	5305	900620	5.32	3.6	9070	977554	4.83	3.2	3.35	-0.49 *	-0.15
ACADEMIC	6481	1322785	8.29	3.8	9468	1009104	7.62	3.7	3.72	-0.67 *	-0.18
VOCATIONAL	3909	636730	4.70	3.4	6042	642443	4.15	3.0	3.14	-0.55 *	-0.18
COMMUNITY TYPE:											
URBAN	4092	702623	6.28	3.9	5524	513906	5.20	3.7	3.79	-1.07 *	-0.28
SUBURBAN	7643	1480061	7.11	4.0	11914	1303509	6.14	3.7	3.81	-0.97 *	-0.26
RURAL	3536	611217	5.75	3.8	7498	849066	5.32	3.5	3.62	-0.42 *	-0.12

*SIGNIFICANT AT .05 OR LESS

community type. The students living in rural areas were characterized by a somewhat smaller decline than those students classified as either urban or suburban. It may be that rural areas were more stable both in respect to population shifts and schooling practices during the 1972-1980 period.

The pervasiveness of the decline is emphasized by the fact that it is consistent across the three curriculum areas. There are declines for students from both public and Catholic schools. The magnitude of the decline is somewhat greater for students in Catholic schools. There is not sufficient data in 1972 on the private, non-Catholic schools to draw any conclusion about the stability of Vocabulary scores for students in these schools.

When sex is cross-classified with curriculum (see Tables 5-1.1 to 5-1.6 in Appendix C for the cross-classification tables), the female Vocabulary score decline is relatively consistent across the academic and vocational curricula with only a slightly lower rate of decline for the general curriculum student. When comparing Black and White declines while controlling for SES, one notes that there is a larger White decline in standard deviation units at all SES levels. The smaller decline for Blacks may be partly artifactual in the sense that the majority of Blacks are in the low SES category (especially in 1972), and there may be a test "floor effect" operating in their favor. That is, the low SES Black mean in 1972 is only 2.76 items correct, leaving little room for decline while the low SES White students had a mean of 5.52 (in 1972), indicating that they may have somewhat less of a floor effect. Only when one gets to the high SES Blacks are the scores sufficiently high to negate the possibility of a floor effect, and here the sample size is too small to draw any reliable conclusions.

When students are cross-classified by SES and school type, the sample sizes are too small to make any comparison that includes private schools. What is clear, however, is that middle SES students in both public and Catholic schools are showing declines in Vocabulary scores.

In summary, there is a decline in Vocabulary test scores between 1972 and 1980. Females tend to show greater declines than males. Whites show greater declines than Blacks, but this comparison is partially confounded with test floor effects. The decline is relatively pervasive and cuts across SES levels, geographical regions, and curriculum type. Two possible interactions were found between score decline and subpopulation classifications. There was a somewhat smaller decline for students in rural areas and for students from public schools as compared to their counterparts attending Catholic schools.

B. CHANGES IN READING TEST SCORES 1972-1980

Table 5-2 indicates an overall decline in Reading test scores of 1.05 test score points or 21 percent of a pooled standard deviation. Again, the typical senior in 1980 would rank at about the 41st percentile among the 1972 seniors in Reading. Although the overall decline (i.e.,

Table 5-2

IRT READING FORMULA SCORE (SCALED TO NLS READING TEST)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15713	2863482	9.89	5.0	24864	2658958	8.84	5.1	5.09	-1.05 *	-0.21
SEX:											
MALE	7811	1427414	9.83	5.0	11352	1215335	8.95	5.3	5.16	-0.88 *	-0.17
FEMALE	7897	1435051	9.95	5.0	12614	1352068	8.96	5.0	5.00	-0.99 *	-0.20
SES:											
LOW	4503	695440	7.65	5.0	7350	705500	6.73	4.7	4.83	-0.92 *	-0.19
MIDDLE	7489	1461882	9.92	4.8	11438	1264873	9.05	4.9	4.87	-0.86 *	-0.18
HIGH	3664	695829	12.13	4.5	5448	626850	11.20	4.8	4.71	-0.94 *	-0.20
RACE:											
WHITE	12180	2384253	10.56	4.8	17818	2105217	9.60	5.0	4.89	-0.96 *	-0.20
BLACK	1935	235572	5.94	4.5	3157	283823	5.56	4.5	4.48	-0.38	-0.09
ASIAN-AMERICAN	182	25667	10.14	5.2	320	33695	9.11	5.0	5.12	-1.03	-0.20
AMERICAN INDIAN	181	29787	6.51	4.9	199	20103	7.11	4.8	4.86	0.60	0.12
MEXICAN-AMERICAN	517	68498	6.28	4.6	1620	83914	5.60	4.4	4.43	-0.69	-0.15
PUERTO RICAN	84	8376	6.11	4.7	261	14047	5.68	4.3	4.42	-0.43	-0.10
OTHER HISPANIC	112	17498	6.68	4.8	853	57027	5.73	4.7	4.70	-0.95	-0.20
SCHOOL TYPE:											
PUBLIC	14114	2543636	9.78	5.0	21618	2391769	8.66	5.1	5.09	-1.12 *	-0.22
PRIVATE	66	16235	11.41	5.1	734	84636	11.31	5.2	5.16	-0.09	-0.02
CATHOLIC	989	224161	11.61	4.4	2512	182553	10.06	4.7	4.62	-1.55 *	-0.33
GEOGRAPHIC REGION:											
NORTHEAST	3493	777802	10.55	4.9	4974	605302	9.57	5.0	4.97	-0.98 *	-0.20
NORTH CENTRAL	4100	833505	9.97	4.9	7292	783970	9.21	5.0	4.96	-0.76 *	-0.15
SOUTH	5338	773939	9.14	5.2	8199	806228	7.83	5.2	5.20	-1.31 *	-0.25
WEST	2782	478236	9.88	5.1	4399	463458	9.01	5.1	5.07	-0.87 *	-0.17
CURRICULUM:											
GENERAL	5310	901464	8.48	4.8	9041	974753	7.71	4.8	4.79	-0.78 *	-0.16
ACADEMIC	6486	1323908	11.99	4.4	9439	1006476	11.33	4.7	4.62	-0.66 *	-0.14
VOCATIONAL	3916	637808	7.51	4.7	6035	641041	6.81	4.7	4.67	-0.70 *	-0.15
COMMUNITY TYPE:											
URBAN	4099	703504	9.46	5.0	5511	511844	8.21	5.2	5.10	-1.25 *	-0.24
SUBURBAN	7649	1481264	10.49	4.9	11863	1298837	9.29	5.1	5.00	-1.20 *	-0.24
RURAL	3541	612151	9.27	5.1	7490	848277	8.52	5.2	5.14	-0.74 *	-0.14

*SIGNIFICANT AT .05 OR LESS

for the total population) is of the same magnitude as that on the Vocabulary test in standard deviation terms, it is even more pervasive or consistent across subpopulations. The male and female declines are reasonably equivalent as are the declines by SES level, geographic areas, and curriculum types. As in the case of Vocabulary, the magnitude of the decline is somewhat smaller for students in rural areas. Blacks also show less of a decline than do the White students. Mexican-Americans show declines only slightly less than the Whites. The sample sizes are too small to draw any conclusions about the magnitudes of decline for the remaining ethnic groups.

It is interesting to note that there is a somewhat greater decline in Reading test scores for students in Catholic schools than for students in public schools. This decline was also present for Vocabulary test scores.

In summary, Reading test scores showed a decline of the same magnitude as the Vocabulary scores. The decline in Reading scores tended to be somewhat more consistent across subpopulations than the Vocabulary scores. That is, declines were consistent across SES, curriculum type, sex groups, and geographic regions. Catholic school students tended to show greater declines than public school students. Students in rural areas showed slightly less declines in tested Reading than did students from urban and suburban areas. Blacks showed smaller declines than Whites. These three interactions, which were also present in the Vocabulary test analysis, were not tested for significance.

C. CHANGES IN MATHEMATICS TEST SCORES 1972-1980

Although Mathematics test scores showed a significant decline (see Table 5-3) for the total population (14 percent of the pooled standard deviation), the decline was less than that found for the Vocabulary and Reading tests. A senior with average Mathematics achievement in 1980 would be at the 45th percentile when compared with the 1972 seniors. The Mathematics test score decline is consistent across sex groups, SES groups, public and Catholic school students, curriculum types, and community types. What is particularly interesting is the finding of a considerably greater decline in Mathematics scores for students in the South. As in the case of Vocabulary and Reading, White students show greater declines than do Blacks and Mexican-Americans. Once again the estimated greater decline for Whites may be somewhat exaggerated due to the greater likelihood of test score floor effects working in favor of the Blacks.

In summary, there is a small but significant decline in Mathematics scores. There is, however, a proportionately greater decline for students attending school in the South. Otherwise the declines tend to generalize across the remaining subpopulations with the exception of Blacks and Mexican-Americans where there are small but not significant increases.

Table 5-3

IRT MATHEMATICS FORMULA SCORE
(SCALED TO NLS MATHEMATICS TEST)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15705	2862252	12.94	7.3	24758	2650446	11.90	7.2	7.24	-1.03 *	-0.14
SEX:											
MALE	7807	1426314	13.79	7.3	11321	1213609	12.83	7.4	7.34	-0.96 *	-0.13
FEMALE	7893	1434921	12.09	7.2	12549	1346152	11.39	6.9	7.00	-0.70 *	-0.10
SES:											
LOW	4493	694282	9.39	7.1	7303	701703	8.44	6.6	6.75	-0.95 *	-0.14
MIDDLE	7490	1461863	12.90	7.0	11410	1263636	12.16	6.8	6.89	-0.74 *	-0.11
HIGH	3666	696135	16.62	6.3	5428	624635	15.83	6.4	6.37	-0.79 *	-0.12
RACE:											
WHITE	12179	2384219	13.95	6.9	17756	2099886	12.98	6.9	6.90	-0.98 *	-0.14
BLACK	1931	235045	6.50	6.2	3153	284281	6.69	6.3	6.22	0.19	0.03
ASIAN-AMERICAN	182	25667	15.96	6.7	317	33116	15.50	7.2	7.03	-0.47	-0.07
AMERICAN INDIAN	181	29787	7.74	6.4	198	20013	8.28	6.5	6.48	0.54	0.08
MEXICAN-AMERICAN	514	68165	8.02	6.8	1610	82650	7.54	6.8	6.79	-0.48	-0.07
PUERTO RICAN	84	8376	6.33	6.2	256	13898	7.19	7.5	7.24	0.85	0.12
OTHER HISPANIC	112	17461	8.04	5.9	839	55699	8.08	6.8	6.69	0.04	0.01
SCHOOL TYPE:											
PUBLIC	14105	2542234	12.79	7.3	21503	2383107	11.59	7.2	7.25	-1.20 *	-0.17
PRIVATE	66	16235	15.50	6.0	735	84822	15.48	6.9	6.80	-0.02	-0.00
CATHOLIC	990	224332	15.36	6.4	2520	182516	14.35	6.2	6.27	-1.02 *	-0.16
GEOGRAPHIC REGION:											
NORTHEAST	3494	778067	13.90	7.1	4955	604620	13.36	7.2	7.15	-0.53	-0.07
NORTH CENTRAL	4099	833316	13.29	7.1	7277	783062	12.59	7.0	7.03	-0.70 *	-0.10
SOUTH	5332	773173	11.95	7.4	8171	805015	10.07	7.1	7.23	-1.88 *	-0.26
WEST	2780	477695	12.37	7.4	4355	457749	12.04	7.1	7.25	-0.34	-0.05
CURRICULUM:											
GENERAL	5303	900844	10.41	6.8	8988	969228	9.89	6.5	6.62	-0.52 *	-0.08
ACADEMIC	6487	1323927	16.66	6.2	9433	1007295	16.17	6.2	6.24	-0.49 *	-0.08
VOCATIONAL	3914	637177	8.78	6.2	5990	637325	8.48	6.2	6.23	-0.31	-0.05
COMMUNITY TYPE:											
URBAN	4097	703168	12.16	7.3	5466	509127	10.98	7.4	7.34	-1.18 *	-0.16
SUBURBAN	7648	1481125	13.81	7.2	11820	1295212	12.70	7.1	7.14	-1.12 *	-0.16
RURAL	3538	611858	12.15	7.3	7472	846107	11.24	7.1	7.14	-0.91 *	-0.13

*SIGNIFICANT AT .05 OR LESS

D. CHANGES IN GRADES 1972-1980

On the student questionnaires, the 1972 and 1980 seniors were asked to describe their high school grades. The scale ranged from 1 = Mostly below D (below 60) to 8 = Mostly A (a numerical average of 90-100). As can be seen from Table 5-4, the mean grade reported increased slightly from 5.55 in 1972 to 5.70 in 1980, or from the middle to slightly above the middle of the mostly C (70 to 74) category. Thus, while test scores have shown small to moderate declines, grades have gone up during the eight-year period. For both the total population and most subpopulations there is a small positive effect indicating an increase in self-reported grades. The increase in self-reported grades is consistent for Blacks and Whites and for all SES areas. The increase in grades is disproportionately greater for students in the academic curriculum and for students in the Northeast and North Central Regions.

As indicated earlier, an increase in grades while achievement test scores declined suggests a slippage in school standards as reflected in the school grades. The fact that both the test score declines and the grade increases were consistent across both curriculum and SES groups suggests that the slippage in standards is pervasive. These results taken in combination with the self-reports of spending less time doing homework (see Chapter VI) suggests there is not only a lowering of grading standards but a lowering of other educational demands and requirements. While no one social indicator can be interpreted in isolation from other relevant and critical indicators, when related social indicators are considered as constellations, we can make causal inferences, albeit tentatively.

If there has been a decrease in the involuntary learning (school required work), then gains in achievement must rely more heavily on voluntary learning. Unfortunately, there are many competing demands on the time for high school students today, not the least of which are extracurricular activities, TV watching, paid work, and non-school related hobbies and social activities. Some of these will be discussed in Chapter VI. The majority, however, were not covered in this cross-sectional study and must await analysis in the 1980-82 longitudinal study.

In sum, these data on grades tend to confirm the much discussed "grade inflation," but they also show that the size of this trend toward higher grades is not substantial for most groups of students.

Table 5-4

GRADES IN HIGH SCHOOL
(1=BELOW D; 8=MOSTLY A)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16576	3024388	5.55	1.4	28013	3017186	5.70	1.4	1.43	0.14 *	0.10
SEX:											
MALE	8221	1506570	5.26	1.4	12815	1389400	5.46	1.4	1.43	0.20 *	0.14
FEMALE	8350	1516801	5.84	1.4	14000	1504276	5.97	1.4	1.38	0.13 *	0.09
SES:											
LOW	4789	736837	5.24	1.4	8335	804180	5.36	1.4	1.43	0.12 *	0.08
MIDDLE	7884	1545878	5.50	1.4	12742	1417012	5.70	1.4	1.40	0.20 *	0.14
HIGH	3841	730980	5.98	1.4	6150	719407	6.14	1.4	1.39	0.16 *	0.11
RACE:											
WHITE	12779	2513137	5.64	1.4	19756	2352390	5.81	1.4	1.43	0.17 *	0.12
BLACK	2107	254734	5.10	1.3	3730	339899	5.27	1.3	1.33	0.17 *	0.13
ASIAN-AMERICAN	192	27493	5.99	1.4	362	39134	6.18	1.3	1.32	0.19	0.15
AMERICAN INDIAN	186	30926	4.92	1.4	212	21795	5.23	1.4	1.40	0.31	0.22
MEXICAN-AMERICAN	551	72389	5.09	1.4	1880	101554	5.16	1.4	1.37	0.07	0.05
PUERTO RICAN	94	9541	5.29	1.5	302	17736	5.34	1.4	1.43	0.06	0.04
OTHER HISPANIC	120	18582	5.38	1.3	969	66541	5.26	1.4	1.37	-0.12	-0.09
SCHOOL TYPE:											
PUBLIC	14859	2683974	5.52	1.4	24473	2715178	5.66	1.5	1.44	0.13 *	0.09
PRIVATE	67	16549	5.58	1.3	865	103196	6.14	1.3	1.30	0.56 *	0.43
CATHOLIC	1023	234807	5.96	1.3	2675	198812	5.99	1.3	1.30	0.03	0.02
GEOGRAPHIC REGION:											
NORTHEAST	3581	796146	5.64	1.3	5625	688748	5.86	1.4	1.36	0.22 *	0.16
NORTH CENTRAL	4551	914144	5.40	1.4	8063	865643	5.59	1.5	1.47	0.19 *	0.13
SOUTH	5478	792013	5.64	1.4	9222	916771	5.69	1.5	1.45	0.05	0.04
WEST	2966	522085	5.56	1.4	5103	546024	5.67	1.4	1.42	0.11	0.08
CURRICULUM:											
GENERAL	5636	961916	5.09	1.4	10216	1104363	5.26	1.4	1.40	0.18 *	0.13
ACADEMIC	6772	1383415	6.05	1.3	10494	1133862	6.36	1.3	1.30	0.31 *	0.24
VOCATIONAL	4167	678754	5.20	1.3	6897	735252	5.36	1.4	1.35	0.16 *	0.12
COMMUNITY TYPE:											
URBAN	4524	781669	5.48	1.4	6460	605593	5.54	1.4	1.44	0.06	0.05
SUBURBAN	7922	1532178	5.60	1.4	13480	1490958	5.70	1.4	1.43	0.10 *	0.07
RURAL	3672	637824	5.60	1.4	8073	920635	5.80	1.4	1.43	0.19 *	0.13

*SIGNIFICANT AT .05 OR LESS

CHAPTER VI

STUDENTS' ATTITUDES, VALUES, AND BEHAVIORS

In this chapter we describe changes in students' aspirations, attitudes, values, and behaviors. It begins with a discussion of changes in students' educational aspirations and post-high-school plans, their beliefs about their ability to complete college, and the influence which parents, teachers, guidance counselors and friends had on the post-high-school plans. Next we discuss changes in the students' occupational aspirations. This is followed by an analysis of changes in attitudes and values related to careers and to other life goals. Next we explore changes in students' self-esteem and locus of control. The final section deals with changes in behavior, specifically in time spent on homework, participation in extracurricular activities, and course-taking behavior.

A. EDUCATIONAL ASPIRATIONS

The seniors were asked, in 1972 and 1980, the highest level of education they planned to attain. The scale ranged from 1 = less than high school to 5 = graduate or professional school. The mean level of education planned by these students was 3.42 in 1972 and 3.45 for 1980, as shown in Table 6-1. This represents a mean level of aspiration for education midway between junior college/post-secondary vocational school and a four-year college (or some post-secondary education but not a college degree). The relative stability of educational aspirations is somewhat illusionary since it represents a very small decrease in male aspirations and a small increase in female aspirations. The sex difference in educational aspirations, evident in 1972, had disappeared by 1980. There was a moderate increase in the educational aspirations of Asian-Americans (the racial/ethnic group with the highest level of educational aspirations). There was a moderate increase in the educational aspirations of students in Catholic schools and in the academic curriculum and smaller increases in the aspirations of students in the general and vocational curricula and in urban and rural schools.

Examination of the interaction of sex and curriculum showed a small statistically significant increase in educational aspirations for males in the academic curriculum. Females in all curricula show greater increases in educational aspirations than do males. There was a moderate decrease in educational aspirations for low SES Hispanics and a small increase in aspirations for high SES Whites. There were moderate increases in educational aspirations for Catholic school students at middle and high SES levels and a small increase for high SES public school students. High SES students in the Northeast, in the West, and in urban and rural communities also showed moderate increases in educational aspirations. There were small to moderate increases in the aspirations of middle and high SES students in all curricula.

Table 6-1

HIGHEST LEVEL OF EDUCATION YOU PLAN TO ATTAIN
(1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	12285	2307353	3.42	1.0	27429	2956578	3.45	1.0	1.02	0.04	0.04
SEX:											
MALE	5963	1130978	3.54	1.0	12563	1362411	3.47	1.1	1.04	-0.07 *	-0.07
FEMALE	6319	1175851	3.30	1.0	13863	1489894	3.46	1.0	0.99	0.16 *	0.16
SES:											
LOW	3059	489999	2.98	1.0	8193	790498	3.01	1.0	0.97	0.02	0.02
MIDDLE	5897	1183646	3.32	0.9	12548	1395723	3.40	1.0	0.97	0.08 *	0.08
HIGH	3305	629448	3.94	0.8	6066	709876	4.10	0.9	0.86	0.16 *	0.19
RACE:											
WHITE	10144	2011874	3.43	1.0	19502	2322042	3.45	1.0	1.01	0.02	0.02
BLACK	1110	136813	3.46	1.0	3631	330771	3.53	1.0	1.03	0.07	0.07
ASIAN-AMERICAN	148	21012	3.74	0.9	354	38196	4.18	0.8	0.87	0.44 *	0.51
AMERICAN INDIAN	109	18604	2.90	1.0	206	21504	3.21	1.0	1.00	0.31	0.31
MEXICAN-AMERICAN	324	43038	3.31	0.9	1852	99618	3.23	1.0	0.99	-0.08	-0.08
PUERTO RICAN	58	5974	3.47	1.0	302	17761	3.25	1.1	1.06	-0.22	-0.21
OTHER HISPANIC	76	12552	3.28	1.0	958	65919	3.33	1.1	1.07	0.05	0.05
SCHOOL TYPE:											
PUBLIC	10964	2035236	3.41	1.0	23938	2658694	3.40	1.0	1.01	-0.00	-0.00
PRIVATE	60	14819	3.82	0.8	845	101332	3.99	1.0	0.97	0.17	0.17
CATHOLIC	860	199125	3.55	1.0	2646	196552	3.84	0.9	0.94	0.29 *	0.31
GEOGRAPHIC REGION:											
NORTHEAST	2746	629475	3.43	1.0	5512	675375	3.55	1.1	1.05	0.11 *	0.11
NORTH CENTRAL	3517	721267	3.35	1.0	7924	852563	3.39	1.0	1.00	0.04	0.04
SOUTH	3899	573524	3.45	1.0	9039	898681	3.40	1.0	1.02	-0.05	-0.05
WEST	2123	383087	3.47	0.9	4954	529959	3.53	1.0	0.97	0.06	0.07
CURRICULUM:											
GENERAL	3896	677701	3.05	0.9	10003	1081101	3.16	1.0	0.95	0.11 *	0.12
ACADEMIC	5710	1179639	3.89	0.8	10358	1119640	4.11	0.9	0.84	0.22 *	0.26
VOCATIONAL	2679	450013	2.72	0.8	6685	714287	2.89	0.8	0.82	0.17 *	0.21
COMMUNITY TYPE:											
URBAN	3240	578819	3.46	1.0	6290	590400	3.53	1.0	1.01	0.08 *	0.08
SUBURBAN	6054	1197451	3.52	1.0	13204	1459473	3.53	1.0	1.01	0.02	0.02
RURAL	2738	485943	3.16	1.0	7935	906705	3.27	1.0	1.00	0.12 *	0.12

*SIGNIFICANT AT .05 OR LESS

In summary, there was little change in the mean level of education planned by the average student in 1972 and in 1980. However, there were moderate increases in the educational aspirations of females, Asian-Americans, Catholic school students, and students in the academic curriculum.

Educational aspirations are a function of many different attitudes, values, and influences. These include students' beliefs about their own intellectual ability and also the influence of parents, teachers, and other key figures. In the next three sections we will examine students' plans for the first year after high school, their beliefs about their ability to do college-level work, and the extent to which parents, teachers, and friends have influenced the students' plans.

B. STUDENTS' PLANS FOR THE FIRST YEAR AFTER HIGH SCHOOL

There is often a gap between high school students' dreams and aspirations and the reality of their immediate plans. Consequently, the students were asked what they planned to do in the first year after they completed high school. The options included several types of post-secondary education, full- and part-time work, military service, and homemaking.

As can be seen in Table 6-2, four-year college was the most frequently mentioned plan, involving 33.6 percent of the 1972 group and 37.8 percent of the 1980 group. Full-time work ranked second in both years, being named as the post-high-school plan for 25.9 percent of the 1972 group and 29.5 percent of the 1980 group. There were increases between 1972 and 1980 both in plans for attending a four-year college (4.2 percentage points) and in plans for full-time work (3.6 percentage points). Fifty-nine percent of the 1972 group planned some form of post-secondary education (45 percent planned academic studies in a four-year college or in a junior college; 14 percent planned vocational studies in a junior college or in a voc-tech institute). Fifty-eight percent of the 1980 group planned some type of post-secondary education (46 percent planned academic studies in a four-year college or in a junior college; 12 percent planned vocational studies in a junior college or in a voc-tech institute). Students planning academic work in a junior college decreased by 2.7 percentage points between 1972 and 1980 as did students planning to attend a voc-tech institute. There was a very small increase in students planning to enter a vocational program in junior college.

Sex differences in students' plans for post-secondary education immediately after high school increased between 1972 and 1980, due primarily to the increased number of females planning to enter a four-year college. In 1972, nearly equal percentages of males and females (58.4 percent of the males and 59.5 percent of the females) planned to enter some type of post-secondary education immediately after high school. By 1980, the percentage of males with such plans had declined

Table 6-2

STUDENTS' PLANS FOR FIRST YEAR AFTER HIGH SCHOOL

	College	Jr. College Academic	Jr. College Vocational	Voc-Tech	Work Full-Time	Work Part-Time	Apprentice	Military	Homemaker	Other
TOTAL										
1972	33.6	11.3	5.4	8.8	25.9	2.1	2.7	3.4	2.8	4.2
1980	37.8	8.6	5.8	6.1	29.5	1.9	2.4	3.5	1.2	3.2
SEX										
Males										
1972	34.6	11.4	5.2	7.2	24.8	1.9	3.8	6.0	0.1	5.0
1980	37.2	7.1	5.1	5.4	31.5	1.5	3.4	5.4	0.2	3.1
Females										
1972	32.5	11.2	5.5	10.3	27.0	2.2	1.5	0.8	5.5	3.5
1980	39.2	10.2	6.4	6.7	26.8	2.2	1.6	1.6	2.1	3.3
SES										
Low										
1972	18.7	6.9	5.0	11.1	39.1	2.6	2.9	4.5	4.6	4.6
1980	21.7	6.2	5.8	8.2	41.6	2.7	3.2	5.0	2.2	3.6
Middle										
1972	29.2	12.3	6.1	9.8	27.0	2.2	3.1	3.3	2.7	4.3
1980	34.3	9.7	6.6	6.9	30.4	1.8	2.6	3.5	1.0	3.1
High										
1972	58.3	13.6	4.2	4.4	10.1	1.3	1.3	2.4	1.0	3.5
1980	60.9	9.4	4.7	2.9	14.1	1.1	1.6	2.1	0.5	2.8
RACE										
White										
1972	34.8	12.0	5.3	8.6	24.6	2.0	2.7	3.3	2.8	3.9
1980	38.3	8.8	5.7	5.8	29.8	1.6	2.4	2.9	1.3	3.3
Black										
1972	32.1	5.4	4.9	11.6	30.6	2.5	3.1	3.7	2.0	4.2
1980	39.0	6.1	5.4	7.5	27.4	3.0	1.8	6.6	0.6	2.5
Hispanic										
1972	23.6	11.6	10.5	7.9	30.3	2.2	2.8	5.5	1.7	3.9
1980	28.1	9.5	6.9	6.7	33.4	3.1	3.1	4.8	1.3	3.0

Table 6-2 (continued)

STUDENTS' PLANS FOR FIRST YEAR AFTER HIGH SCHOOL

	College	Jr. College Academic	Jr. College Vocational	Voc-Tech	Work Full-Time	Work Part-Time	Apprentice	Military	Homemaker	Other
SCHOOL TYPE										
Public										
1972	32.6	11.5	5.3	8.8	26.1	2.2	2,8	3.5	2.9	4.4
1980	35.3	8.8	6.0	6.3	31.0	1.9	2.5	3.7	1.3	3.2
Private										
1972	50.2	10.9	11.0	10.8	10.2	3.2	0.0	0.0	2.5	1.2
1980	61.6	5.0	4.4	4.2	13.4	2.0	0.8	1.7	0.8	6.1
Catholic										
1972	46.7	9.2	5.2	9.4	21.7	1.1	1.6	1.5	1.5	2.2
1980	58.5	8.4	4.1	4.7	17.7	1.4	2.0	1.1	0.5	1.7
CURRICULUM										
Academic										
1972	57.7	14.9	4.8	5.2	9.6	1.1	1.2	2.3	0.9	2.1
1980	66.7	9.8	4.1	2.8	10.2	1.1	1.1	2.0	0.3	1.8
General										
1972	17.6	10.9	5.8	9.7	33.5	3.0	3.9	4.5	4.3	6.8
1980	25.0	9.0	6.2	6.8	37.5	2.3	2.6	4.5	1.8	4.5
Vocational										
1972	7.1	4.4	5.9	14.7	48.2	2.7	3.8	3.9	4.4	5.0
1980	12.5	6.3	7.7	10.2	47.5	2.4	4.1	4.3	1.5	3.5
REGION										
Northeast										
1972	37.1	11.7	4.7	7.8	26.0	1.6	2.6	2.9	1.7	3.8
1980	44.7	7.0	4.4	5.5	25.9	1.9	2.5	4.2	0.8	3.2
North Central										
1972	33.5	7.8	5.0	10.3	27.5	2.2	3.0	3.4	3.1	4.3
1980	37.4	6.8	5.5	7.2	31.7	1.8	2.6	2.6	1.2	3.1
South										
1972	34.0	10.2	4.2	9.9	27.0	1.9	2.5	3.6	3.0	3.5
1980	35.8	8.2	5.5	6.1	32.0	1.7	2.2	4.0	1.4	2.9

Table 6-2 (continued)

STUDENTS' PLANS FOR FIRST YEAR AFTER HIGH SCHOOL

	College	Jr. College Academic	Jr. College Vocational	Voc-Tech	Work Full-Time	Work Part-Time	Apprentice	Military	Homemaker	Other
REGION (cont.)										
West										
1972	27.4	18.2	8.9	6.0	21.3	2.7	2.4	3.8	3.4	5.9
1980	33.1	14.1	8.6	5.3	25.9	2.2	2.5	3.1	1.3	3.9
COMMUNITY										
Urban										
1972	35.5	11.5	5.0	7.7	26.7	1.6	2.7	2.8	2.4	4.0
1980	40.2	7.6	5.9	6.0	27.4	2.4	2.8	3.6	0.9	3.2
Suburb										
1972	37.3	12.6	5.6	7.8	22.7	2.1	2.4	3.5	2.4	3.9
1980	40.3	9.5	6.0	5.4	27.7	1.6	2.6	2.8	1.0	3.2
Rural										
1972	24.1	7.8	5.3	12.6	31.6	2.5	3.4	4.1	4.1	4.4
1980	32.3	7.8	5.4	7.3	33.7	2.0	2.0	4.5	1.8	3.1

to 54.8 percent while the percentage of females increased to 62.5 percent. The percentage of students planning to enter an academic program (either in a four-year college or a junior college) showed a similar trend. In 1972, 46.0 percent of the males planned to enter this type of post-secondary education, but by 1980 the percentage had declined to 44.3 percent. For females, however, the percentage planning immediate post-high-school entrance into academic post-secondary education rose from 44.3 percent in 1972 to 49.4 percent in 1980. The percentage of students planning to enter vocational post-secondary education in a junior college or a voc-tech institute immediately after high school declined between 1972 and 1980 for both males and females.

There was an increase of 3.5 percentage points between 1972 and 1980 in students planning to begin full-time work immediately after high school. This increase was due to a sharp rise in the percentage of males with such plans (24.8 percent in 1972 and 31.5 percent in 1980). The percentage of females with immediate plans for full-time work decreased very slightly between 1972 and 1980.

Increases in the percentage of students planning to enter a four-year college or to enter a vocational program in a junior college occurred across all SES levels. Declines in the percentage of students planning to enter an academic program in a junior college or to enter a voc-tech institute are also found across all SES levels. Increases in the percentage of students planning to enter a four-year college also occurred in all racial/ethnic groups. Blacks also showed increases in the percentage of students planning to enter a junior college, but there is a decline in the percentage of Hispanics planning this type of post-secondary education.

There was also an increase, at all SES levels, in the percentage of students planning to work full-time immediately after high school. This increase was also evident for White and Hispanic students; there was a decrease, however, between 1972 and 1980, in Black students planning to enter full-time employment immediately after high school.

It is not surprising that four-year college was the most frequently mentioned post-high-school plan in both 1972 and 1980 for students in the academic curriculum. Plans for this type of post-secondary education increased by 9 percentage points among academic students between 1972 and 1980. However, plans for all other types of post-secondary education showed a decrease among academic students. This netted a very small increase (from 82.6 percent to 83.4 percent) in the percentage of academic curriculum students planning to enter any type of post-secondary education immediately after high school.

Full-time work was the most frequently mentioned post-high-school plan in 1972 and in 1980 for students in the general and the vocational curricula. Plans for work increased among general curriculum students but decreased among vocational students. However, plans for some type of post-secondary education increased among both general and vocational students. In 1972, 44.0 percent of the general and 32.1 percent of the vocational students had immediate plans for post-secondary education; by 1980 this had increased to 47.0 percent and 36.7 percent. Perhaps most surprising is the fact that there was a decrease, from 20.6 percent in 1972 to 17.9 percent in 1980, in the percentage of vocational curriculum students planning to enter post-secondary vocational education in a junior college or in a voc-tech institute.

This picture of changes in immediate post-high-school plans is fairly consistent with the educational aspirations changes discussed earlier. The increase in females' educational aspirations is matched by their increased plans for participation in post-secondary education. Although there was an increase between 1972 and 1980 in the percentage of students planning to enter four-year colleges, declines in plans for most other forms of post-secondary education resulted in a very small net loss (0.8 percentage points) for post-secondary education participation immediately after high school. The shift to four-year colleges from other types of post-secondary education may be due to changes in the competitiveness of entrance into four-year colleges between 1972 and 1980.

C. ABILITY TO COMPLETE COLLEGE

The students were asked, regardless of their educational plans, if they thought that they had the ability to complete college. The scale ranged from 1 = definitely not to 5 = yes, definitely. As shown in Table 6-3, the mean in 1972 was 4.05; in 1980 it was 4.20. This indicates that the average high school students in these groups believed that they had the intellectual ability to complete college. The increase from 1972 to 1980 is significant but has only a small effect size. This increase appears inconsistent with the declining proportion of students in the academic curriculum and with the falling test scores. It is, however, consistent with the rise in high school grades.

The increase in students' belief that they have the ability to complete college was fairly consistent across sex, SES groups, and curricula. White and Black students showed small increases, and there was a large increase among Asian-Americans. Catholic school students showed a moderate increase, while students in public schools showed a small increase. Students from rural communities showed a moderate increase, while the students in urban and suburban communities showed small increases.

D. INFLUENCES OF OTHERS ON PLANS FOR AFTER HIGH SCHOOL

The students were asked to indicate the extent to which four groups of significant others influenced the students' post-high-school plans (whether for further education, paid work, or another activity). The scale ranges from 1 = no influence at all to 3 = a great deal. As can be

Table 6-3

DO YOU THINK YOU HAVE THE ABILITY TO COMPLETE COLLEGE
(1=DEFINITELY NOT; 5=YES, DEFINITELY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16433	3002090	4.05	1.0	27165	2930326	4.20	1.0	0.99	0.15 *	0.15
SEX:											
MALE	8142	1494648	4.06	1.0	12750	1383934	4.20	1.0	1.00	0.14 *	0.14
FEMALE	8286	1506424	4.05	1.0	13962	1499831	4.21	0.9	0.97	0.16 *	0.17
SES:											
LOW	4724	727019	3.71	1.1	8059	776373	3.87	1.1	1.10	0.15 *	0.14
MIDDLE	7813	1533525	4.03	1.0	12459	1386673	4.20	0.9	0.96	0.17 *	0.18
HIGH	3844	732597	4.45	0.8	6066	711332	4.59	0.7	0.73	0.15 *	0.20
RACE:											
WHITE	12696	2499082	4.08	1.0	19457	2316310	4.21	1.0	0.98	0.13 *	0.13
BLACK	2069	249702	4.04	1.0	3487	317414	4.23	1.0	0.96	0.18 *	0.19
ASIAN-AMERICAN	192	27654	4.02	1.0	356	38640	4.52	0.7	0.80	0.50 *	0.62
AMERICAN INDIAN	182	30102	3.57	1.1	204	20893	3.95	1.1	1.14	0.38	0.34
MEXICAN-AMERICAN	548	71714	3.91	1.0	1818	97356	3.93	1.0	0.99	0.02	0.02
PUERTO RICAN	95	9691	3.79	1.1	297	17292	4.07	1.1	1.11	0.28	0.25
OTHER HISPANIC	120	18550	3.95	1.1	928	62469	4.04	1.0	1.01	0.09	0.09
SCHOOL TYPE:											
PUBLIC	14736	2665150	4.04	1.0	23681	2631565	4.17	1.0	1.00	0.13 *	0.13
PRIVATE	67	16549	4.35	0.8	861	103288	4.49	0.8	0.81	0.15	0.18
CATHOLIC	1013	232771	4.19	1.0	2623	195472	4.42	0.8	0.85	0.23 *	0.27
GEOGRAPHIC REGION:											
NORTHEAST	3539	789613	4.08	1.0	5530	678565	4.27	0.9	0.97	0.19 *	0.19
NORTH CENTRAL	4510	906230	3.98	1.1	7786	839332	4.14	1.0	1.03	0.16 *	0.16
SOUTH	5432	785323	4.05	1.0	8882	879003	4.16	1.0	1.00	0.11 *	0.11
WEST	2952	520925	4.13	1.0	4967	533425	4.26	0.9	0.92	0.13 *	0.15
CURRICULUM:											
GENERAL	5569	951276	3.76	1.1	9863	1067170	3.99	1.0	1.05	0.23 *	0.22
ACADEMIC	6776	1385199	4.46	0.7	10338	1118542	4.61	0.6	0.69	0.15 *	0.22
VOCATIONAL	4087	665312	3.63	1.1	6579	703008	3.89	1.1	1.08	0.26 *	0.24
COMMUNITY TYPE:											
URBAN	4495	777661	4.08	1.0	6207	582480	4.22	1.0	0.97	0.13 *	0.14
SUBURBAN	7877	1523846	4.13	1.0	13108	1450840	4.25	0.9	0.95	0.12 *	0.12
RURAL	3644	633262	3.87	1.1	7850	897006	4.11	1.0	1.04	0.23 *	0.22

*SIGNIFICANT AT .05 OR LESS

seen in summary Table 6-4, parents had the greatest influence on students' post-high-school plans in both 1972 and in 1980. In 1972, teachers were the group which had the least influence. By 1980, however, teachers' influence had increased, and guidance counselors were the group with the least influence. Three of the four groups of significant others, teachers, parents and guidance counselors, showed an increase in influence on students' post-high-school plans between 1972 and 1980. The influence of friends and relatives, however, decreased.

Table 6-4

Influence of Significant Others on Students' Post-High-School Plans

Influences	1972 Mean	1980 Mean	Difference	Effect Size
Parents	2.33	2.42	0.09*	0.15
Friends and Relatives	2.15	2.02	-0.14*	-0.20
Guidance Counselor	1.55	1.61	0.06*	0.08
Teachers	1.49	1.73	0.23*	0.34

*Significant at .05 or less

Parents' influence on students' post-high-school plans showed a small increase from 1972 to 1980. (See Table 6-5.) This increase was larger for high and middle SES students than for low SES students. Students in Catholic schools showed a greater increase than public school students. Students from the West showed a greater increase than students from other regions.

Teachers' influence on students' post-high-school plans showed a moderate increase from 1972 to 1980. There was little variation in this increase across sex, racial/ethnic, SES, curriculum, geographic region, school type, or community type. (See Table 6-6.) Cross-tabulations of teacher influence show somewhat larger increases for middle SES Hispanics and for high SES Blacks. High SES students in the academic and vocational curricula consistently showed slightly larger increases in teacher influence.

Although guidance counselors' influence on students post-high-school plans increased very slightly between 1972 and 1980, it reached a small but significant effect size with students in Catholic schools. (See Table 6-7.) Cross-tabulations show small increases for influence of the counselor for students in Catholic schools regardless of SES.

Friends and relatives were the only group of significant others to show any decline in their influence on students post-high-school plans between 1972 and 1980. This decrease is 20 percent of a standard deviation. The decrease was greater for low SES than high SES students. (See Table 6-8.) It was also somewhat greater for Black and other Hispanic

Table 6-5

INFLUENCE OF PARENTS ON PLANS FOR AFTER HIGH SCHOOL
(1=NOT AT ALL; 3=A GREAT DEAL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16599	3030694	2.33	0.6	27547	2971982	2.42	0.6	0.64	0.09 *	0.15
SEX:											
MALE	8232	1509407	2.31	0.7	12690	1379228	2.41	0.6	0.65	0.10 *	0.16
FEMALE	8362	1520270	2.35	0.6	13957	1500182	2.44	0.6	0.64	0.09 *	0.14
SES:											
LOW	4784	735239	2.30	0.7	8177	790295	2.35	0.7	0.68	0.06 *	0.08
MIDDLE	7894	1549370	2.30	0.6	12616	1402909	2.40	0.6	0.64	0.10 *	0.16
HIGH	3857	734919	2.42	0.6	6097	714494	2.55	0.6	0.59	0.13 *	0.22
RACE:											
WHITE	12810	2520080	2.31	0.6	19581	2332409	2.40	0.6	0.64	0.09 *	0.14
BLACK	2098	253552	2.53	0.6	3610	329657	2.57	0.6	0.63	0.04	0.07
ASIAN-AMERICAN	191	27609	2.43	0.7	356	38717	2.49	0.6	0.64	0.06	0.09
AMERICAN INDIAN	186	31059	2.29	0.7	205	21102	2.52	0.6	0.64	0.23 *	0.35
MEXICAN-AMERICAN	552	72480	2.40	0.7	1830	97985	2.50	0.6	0.65	0.09	0.15
PUERTO RICAN	96	9764	2.33	0.7	295	17046	2.36	0.7	0.70	0.04	0.05
OTHER HISPANIC	122	18844	2.43	0.6	949	64763	2.46	0.6	0.64	0.03	0.05
SCHOOL TYPE:											
PUBLIC	14878	2689030	2.33	0.6	24028	2671355	2.42	0.6	0.65	0.09 *	0.14
PRIVATE	67	16549	2.35	0.6	861	103070	2.48	0.6	0.61	0.13	0.21
CATHOLIC	1026	235732	2.32	0.6	2658	197557	2.47	0.6	0.61	0.15 *	0.25
GEOGRAPHIC REGION:											
NORTHEAST	3599	801829	2.32	0.7	5569	684337	2.39	0.6	0.65	0.08 *	0.12
NORTH CENTRAL	4552	913877	2.31	0.6	7925	853383	2.38	0.6	0.64	0.07 *	0.11
SOUTH	5476	791492	2.40	0.6	9042	898078	2.49	0.6	0.64	0.10 *	0.15
WEST	2972	523495	2.28	0.7	5011	536184	2.42	0.6	0.65	0.14 *	0.22
CURRICULUM:											
GENERAL	5639	963148	2.26	0.7	10019	1084871	2.37	0.7	0.66	0.11 *	0.17
ACADEMIC	6797	1389247	2.40	0.6	10410	1125843	2.51	0.6	0.61	0.11 *	0.18
VOCATIONAL	4162	677997	2.28	0.7	6719	717871	2.37	0.7	0.66	0.09 *	0.13
COMMUNITY TYPE:											
URBAN	4538	783616	2.34	0.6	6302	591323	2.46	0.6	0.64	0.12 *	0.19
SUBURBAN	7935	1536531	2.33	0.6	13286	1471342	2.42	0.6	0.64	0.09 *	0.14
RURAL	3670	637501	2.31	0.6	7959	909317	2.41	0.6	0.65	0.09 *	0.14

*SIGNIFICANT AT .05 OR LESS

Table 6-6

INFLUENCE OF TEACHERS ON PLANS FOR AFTER HIGH SCHOOL
(1=NOT AT ALL; 3=A GREAT DEAL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16444	3005323	1.49	0.7	26910	2907565	1.73	0.7	0.69	0.23 *	0.34
SEX:											
MALE	8150	1495673	1.47	0.7	12389	1349949	1.69	0.7	0.68	0.23 *	0.33
FEMALE	8289	1508634	1.52	0.7	13665	1469508	1.75	0.7	0.70	0.24 *	0.34
SES:											
LOW	4704	724912	1.54	0.7	7935	767333	1.77	0.7	0.71	0.23 *	0.33
MIDDLE	7838	1538073	1.49	0.7	12375	1378183	1.71	0.7	0.69	0.22 *	0.32
HIGH	3844	732170	1.46	0.7	5993	701701	1.72	0.7	0.67	0.25 *	0.38
RACE:											
WHITE	12740	2505498	1.46	0.7	19258	2293844	1.68	0.7	0.67	0.22 *	0.32
BLACK	2041	246892	1.75	0.7	3451	314543	1.96	0.7	0.74	0.21 *	0.29
ASIAN-AMERICAN	191	27609	1.59	0.7	349	38009	1.78	0.7	0.71	0.19	0.27
AMERICAN INDIAN	182	30600	1.41	0.6	201	20727	1.85	0.7	0.64	0.45 *	0.69
MEXICAN-AMERICAN	542	71046	1.58	0.7	1760	93796	1.84	0.7	0.73	0.26 *	0.36
PUERTO RICAN	93	9415	1.68	0.7	282	16597	1.92	0.7	0.70	0.24	0.34
OTHER HISPANIC	118	18323	1.47	0.6	913	62255	1.78	0.7	0.72	0.31 *	0.44
SCHOOL TYPE:											
PUBLIC	14739	2666327	1.49	0.7	23446	2612212	1.73	0.7	0.69	0.24 *	0.34
PRIVATE	67	16549	1.53	0.7	842	100132	1.79	0.7	0.70	0.26	0.36
CATHOLIC	1022	234852	1.43	0.6	2622	195221	1.63	0.6	0.64	0.20 *	0.31
GEOGRAPHIC REGION:											
NORTHEAST	3561	794710	1.45	0.7	5455	671104	1.70	0.7	0.68	0.25 *	0.37
NORTH CENTRAL	4518	907612	1.48	0.7	7796	840568	1.68	0.7	0.68	0.20 *	0.29
SOUTH	5414	783096	1.55	0.7	8781	873505	1.79	0.7	0.71	0.24 *	0.34
WEST	2951	519906	1.48	0.7	4878	522388	1.72	0.7	0.69	0.24 *	0.35
CURRICULUM:											
GENERAL	5575	953828	1.40	0.6	9764	1056616	1.61	0.7	0.66	0.20 *	0.31
ACADEMIC	6759	1381081	1.54	0.7	10260	1110539	1.81	0.7	0.70	0.27 *	0.39
VOCATIONAL	4109	670112	1.53	0.7	6512	699108	1.78	0.7	0.71	0.25 *	0.35
COMMUNITY TYPE:											
URBAN	4488	776133	1.52	0.7	6106	574267	1.80	0.7	0.71	0.27 *	0.38
SUBURBAN	7876	1526107	1.47	0.7	12987	1439263	1.70	0.7	0.68	0.22 *	0.33
RURAL	3639	632408	1.51	0.7	7817	894035	1.73	0.7	0.69	0.22 *	0.32

*SIGNIFICANT AT .05 OR LESS

Table 6-7

INFLUENCE OF GUIDANCE COUNSELOR ON PLANS FOR AFTER HIGH SCHOOL
(1=NOT AT ALL; 3=A GREAT DEAL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16456	3008556	1.55	0.6	26859	2901445	1.61	0.7	0.67	0.06 *	0.08
SEX:											
MALE	8156	1497530	1.55	0.6	12357	1345819	1.59	0.7	0.66	0.04 *	0.07
FEMALE	8295	1510009	1.55	0.6	13648	1467970	1.62	0.7	0.67	0.06 *	0.09
SES:											
LOW	4706	725227	1.63	0.7	7912	764420	1.68	0.7	0.70	0.05 *	0.08
MIDDLE	7844	1539785	1.54	0.6	12356	1374926	1.59	0.7	0.66	0.05 *	0.08
HIGH	3846	732895	1.50	0.6	5988	702410	1.55	0.6	0.63	0.05 *	0.08
RACE:											
WHITE	12750	2508227	1.51	0.6	19234	2291585	1.55	0.6	0.64	0.04 *	0.06
BLACK	2040	246853	1.88	0.7	3438	312504	1.91	0.7	0.74	0.02	0.03
ASIAN-AMERICAN	191	27584	1.62	0.6	349	38274	1.66	0.7	0.69	0.03	0.05
AMERICAN INDIAN	184	30745	1.62	0.7	198	20530	1.72	0.7	0.70	0.09	0.13
MEXICAN-AMERICAN	543	71182	1.73	0.7	1750	93024	1.78	0.7	0.72	0.05	0.07
PUERTO RICAN	93	9473	1.66	0.7	285	16695	1.71	0.7	0.72	0.05	0.08
OTHER HISPANIC	118	18323	1.60	0.7	905	61051	1.67	0.7	0.69	0.06	0.09
SCHOOL TYPE:											
PUBLIC	14746	2668764	1.56	0.6	23406	2607886	1.60	0.7	0.67	0.05 *	0.07
PRIVATE	67	16549	1.40	0.5	833	98385	1.61	0.7	0.65	0.20	0.32
CATHOLIC	1024	235319	1.48	0.6	2620	195174	1.64	0.7	0.66	0.17 *	0.25
GEOGRAPHIC REGION:											
NORTHEAST	3571	797108	1.58	0.7	5461	671454	1.64	0.7	0.67	0.06 *	0.09
NORTH CENTRAL	4523	908008	1.54	0.6	7777	838501	1.58	0.7	0.65	0.04 *	0.07
SOUTH	5410	782451	1.60	0.7	8756	870479	1.64	0.7	0.69	0.04 *	0.06
WEST	2952	520989	1.46	0.6	4865	521010	1.55	0.7	0.64	0.09 *	0.14
CURRICULUM:											
GENERAL	5571	953597	1.48	0.6	9758	1056400	1.55	0.7	0.65	0.08 *	0.12
ACADEMIC	6765	1383087	1.60	0.7	10254	1109712	1.66	0.7	0.68	0.06 *	0.08
VOCATIONAL	4119	671569	1.55	0.6	6474	694700	1.60	0.7	0.67	0.05 *	0.08
COMMUNITY TYPE:											
URBAN	4491	776443	1.56	0.7	6087	571441	1.65	0.7	0.69	0.09 *	0.14
SUBURBAN	7880	1527350	1.53	0.6	12981	1439092	1.58	0.7	0.65	0.05 *	0.07
RURAL	3639	633091	1.59	0.6	7791	890911	1.62	0.7	0.67	0.03	0.05

*SIGNIFICANT AT .05 OR LESS

Table 6-8

INFLUENCE OF FRIENDS AND RELATIVES ON PLANS FOR AFTER HIGH SCHOOL
(1=NOT AT ALL; 3=A GREAT DEAL)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16539	3021095	2.15	0.7	27211	2937981	2.02	0.7	0.69	-0.14 *	-0.20
SEX:											
MALE	8202	1504182	2.11	0.7	12505	1361642	1.95	0.7	0.69	-0.16 *	-0.23
FEMALE	8332	1515896	2.20	0.7	13830	1486238	2.08	0.7	0.69	-0.12 *	-0.18
SES:											
LOW	4750	730637	2.22	0.7	8064	780219	2.04	0.7	0.69	-0.18 *	-0.27
MIDDLE	7871	1544839	2.15	0.7	12486	1389331	2.01	0.7	0.69	-0.14 *	-0.20
HIGH	3857	734924	2.10	0.7	6037	707263	2.01	0.7	0.69	-0.09 *	-0.13
RACE:											
WHITE	12790	2515773	2.13	0.7	19422	2312520	1.99	0.7	0.69	-0.13 *	-0.20
BLACK	2071	250157	2.36	0.7	3529	322266	2.13	0.7	0.69	-0.22 *	-0.32
ASIAN-AMERICAN	191	27609	2.20	0.7	354	33737	2.07	0.7	0.70	-0.14	-0.19
AMERICAN INDIAN	184	30888	2.23	0.7	201	20839	2.15	0.6	0.67	-0.08	-0.12
MEXICAN-AMERICAN	545	71464	2.26	0.6	1795	95992	2.12	0.7	0.68	-0.14 *	-0.20
PUERTO RICAN	95	9676	2.28	0.7	286	16579	2.05	0.7	0.71	-0.24	-0.33
OTHER HISPANIC	121	18565	2.28	0.7	918	62192	1.99	0.7	0.69	-0.29 *	-0.42
SCHOOL TYPE:											
PUBLIC	14824	2680571	2.15	0.7	23722	2639559	2.01	0.7	0.69	-0.14 *	-0.20
PRIVATE	67	16549	2.08	0.6	852	101676	2.05	0.7	0.69	-0.03	-0.05
CATHOLIC	1025	235344	2.15	0.7	2637	196746	2.05	0.7	0.69	-0.10 *	-0.15
GEOGRAPHIC REGION:											
NORTHEAST	3585	799069	2.09	0.7	5493	675161	1.98	0.7	0.68	-0.11 *	-0.16
NORTH CENTRAL	4533	910451	2.16	0.7	7865	847785	1.99	0.7	0.69	-0.17 *	-0.25
SOUTH	5455	788591	2.24	0.7	8906	885681	2.07	0.7	0.70	-0.17 *	-0.25
WEST	2966	522984	2.12	0.7	4947	529353	2.03	0.7	0.70	-0.09 *	-0.13
CURRICULUM:											
GENERAL	5612	959102	2.16	0.7	9894	1071226	2.01	0.7	0.69	-0.15 *	-0.22
ACADEMIC	6791	1387828	2.14	0.7	10327	1117890	2.03	0.7	0.69	-0.11 *	-0.16
VOCATIONAL	4135	673862	2.18	0.7	6603	706846	2.01	0.7	0.70	-0.17 *	-0.25
COMMUNITY TYPE:											
URBAN	4516	780089	2.17	0.7	6188	581332	2.06	0.7	0.70	-0.11 *	-0.16
SUBURBAN	7917	1533553	2.14	0.7	13125	1453997	2.00	0.7	0.69	-0.14 *	-0.20
RURAL	3656	635233	2.17	0.7	7898	902652	2.01	0.7	0.69	-0.16 *	-0.23

*SIGNIFICANT AT .05 OR LESS

students than for those from other racial/ethnic groups. The decrease was greater in the North Central and Southern regions than in the Northeast or West and greater in rural than in urban or suburban communities. Cross-tabulations show that the decrease is largest for low SES students regardless of race, school type, curriculum, or community type.

In summary, parents, teachers, and guidance counselors all showed an increase between 1972 and 1980 in their influence on students' post-high-school plans. Friends and relatives showed a decrease in influence, especially among low SES students and among students in the North Central and Southern regions. Despite these changes, parents, friends and relatives continue to be more influential in students' post-high-school plans than teachers or guidance counselors. Teachers showed a larger increase from 1972 to 1980 in influence than did parents or guidance counselors, and this increase shows relatively little variation across groups, regions, school and community type, or curriculum. One possible interpretation of these data is that, between 1972 and 1980, students began to rely less on their peers and more on adults for advice about their post-high-school plans. The data also suggest that teachers may be assuming a larger role in counseling students, whether formally or informally.

E. OCCUPATIONAL ASPIRATIONS

The students were asked in 1972 and in 1980 to indicate the type of job they expected or planned to have at age 30. In both groups, more than 40 percent of the students indicated that they planned to enter professional jobs "such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, scientist, librarian, writer, social worker, actor/actress, athlete, politician, or school teacher." (See Table 6-9.) No other occupational category attracted such a large proportion of students. Clerical work "such as bank teller, bookkeeper, secretary, typist, mail carrier, or ticket agent" was the second most popular career goal, attracting 14 percent of the students in 1972 and 10 percent of the students in 1980. Each of the other occupational categories (craftsman, farmer, homemaker, laborer, military, operative, proprietor, protective service, sales service, and technical work) attracted fewer than 10 percent of the students. Craft occupations were the third most popular career choice in both 1972 and in 1980.

Between 1972 and 1980, aspirations for managerial or administrative occupations rose most rapidly, by 4.0 percentage points, from being selected by 3.1 percent of the 1972 students to being selected by 7.1 percent of the 1982 students. Aspirations for careers as business proprietors or managers rose by 2.2 percentage points, from 1.8 percent of the 1972 students to 4.0 percent of the 1980 students. Aspirations for clerical careers declined by 4.4 percentage points.

Professional occupations were the most popular choice for both females and males in both 1972 and in 1980. The second most frequently selected occupational category for males was craftsman, "such as baker,

Table 6-9

TYPE OF WORK STUDENT WANTS TO DO AT AGE 30

	Professional	Clerical	Crafts	Technical	Managerial	Proprietor	Service	Sales	Other
TOTAL GROUP									
1972	45.4	14.2	7.5	6.6	3.1	1.8	4.2	3.0	14.2
1980	43.4	9.8	8.3	8.2	7.1	4.0	3.5	2.1	13.6
SEX									
Males									
1972	41.8	1.9	15.1	8.8	5.1	3.2	1.6	2.7	19.8
1980	38.8	1.3	15.7	10.5	7.9	5.6	0.7	2.0	17.5
Females									
1972	48.8	25.5	0.5	4.6	1.3	0.5	6.7	3.3	8.8
1980	48.7	17.7	1.1	6.0	6.5	2.5	6.1	2.2	9.2
SES									
Low									
1972	30.7	21.4	9.3	6.8	2.4	1.3	6.7	3.3	18.1
1980	32.5	15.4	10.8	7.9	5.3	3.0	5.1	2.0	18.0
Middle									
1972	41.8	15.4	8.3	7.3	2.9	1.6	4.4	3.2	15.1
1980	41.5	9.9	9.0	9.3	6.7	4.1	3.6	2.0	13.9
High									
1972	63.8	6.2	4.6	5.3	4.1	2.6	2.1	2.5	8.8
1980	58.4	4.5	4.7	6.8	9.5	4.4	1.7	2.1	7.9
RACE									
White									
1972	46.1	13.1	7.7	6.5	3.1	1.9	4.3	3.1	14.2
1980	43.9	9.3	8.6	7.9	7.0	4.2	3.5	2.1	13.5
Black									
1972	40.0	26.5	3.6	8.7	3.3	1.1	2.8	1.9	12.1
1980	42.6	12.5	6.0	10.2	8.3	3.1	3.8	2.5	11.0
Hispanic									
1972	38.2	23.4	7.6	7.8	3.0	1.6	4.5	2.0	11.9
1980	38.9	12.5	9.0	9.0	5.2	3.6	3.8	2.1	15.9

Table 6-9 (continued)

TYPE OF WORK STUDENT WANTS TO DO AT AGE 30

	Professional	Clerical	Crafts	Technical	Managerial	Proprietor	Service	Sales	Other
CURRICULUM									
Academic									
1972	65.0	5.5	3.5	6.8	3.4	1.3	2.4	2.4	9.7
1980	64.1	4.0	2.8	8.4	7.9	2.8	1.5	1.4	7.1
General									
1972	34.0	12.0	11.2	6.4	2.7	2.8	6.6	3.7	20.6
1980	36.4	8.8	10.1	7.6	7.0	4.9	4.8	2.7	17.7
Vocational									
1972	12.9	38.9	12.3	6.6	2.9	1.7	5.5	3.6	15.6
1980	22.3	20.3	14.3	8.8	6.0	4.5	4.5	2.4	16.9
SCHOOL TYPE									
Public									
1972	45.0	13.8	7.8	6.6	3.1	1.8	4.4	3.1	14.4
1980	42.0	10.1	8.8	8.4	7.0	3.9	3.6	2.1	14.1
Private									
1972	58.4	11.5	6.9	3.4	1.7	0.0	3.1	0.0	15.0
1980	58.1	6.0	4.7	5.2	7.5	7.2	2.2	1.1	8.0
Catholic									
1972	52.7	15.4	5.0	6.6	3.1	1.7	3.0	2.7	9.8
1980	56.3	8.3	4.2	7.2	8.2	3.3	2.9	2.1	7.5
REGION									
Northeast									
1972	49.4	14.2	6.7	6.1	3.2	1.7	3.9	3.0	11.8
1980	46.9	9.5	7.6	7.7	8.1	4.2	3.0	1.6	11.4
North Central									
1972	41.5	14.5	8.7	6.9	2.9	1.6	5.5	3.7	14.7
1980	42.5	8.9	9.4	7.8	7.1	3.5	4.1	2.3	14.4
South									
1972	44.0	16.4	6.5	7.0	3.4	2.1	3.1	3.0	14.6
1980	41.4	11.9	7.8	8.8	6.6	3.9	3.5	2.3	13.8

Table 6-9 (continued)

TYPE OF WORK STUDENT WANTS TO DO AT AGE 30

	Professional	Clerical	Crafts	Technical	Managerial	Proprietor	Service	Sales	Other
REGION (cont.)									
West									
1972	48.3	10.1	8.3	6.6	2.9	1.8	4.2	2.0	15.8
1980	44.5	8.4	8.3	8.6	6.6	4.4	3.5	2.1	13.6
COMMUNITY									
Urban									
1972	45.4	16.4	6.7	7.1	2.8	1.9	4.0	3.3	12.4
1980	46.9	11.4	7.6	8.8	7.1	3.7	3.2	1.8	9.5
Suburban									
1972	50.0	12.3	6.7	6.3	3.4	1.9	3.7	3.1	12.6
1980	45.7	8.7	7.8	8.5	7.6	4.2	3.2	2.3	12.0
Rural									
1972	35.2	15.4	10.5	6.6	2.8	1.4	5.5	2.4	20.2
1980	38.0	10.6	9.6	7.3	6.2	3.8	4.2	2.0	18.3

automobile mechanic, machinist, painter, plumber, telephone installer, or carpenter," attracting about 15 percent of the male respondents in each year. For females, clerical work was the second most frequently selected occupational category, attracting 25 percent of the 1972 females and 18 percent of the 1980 respondents. Males showed the largest 1972 to 1980 decline in aspirations for a professional career, going from 41.8 percent in 1972 to 38.8 percent in 1980. The occupational category with the largest increase for males was proprietor, attracting 3.2 percent of the 1972 group and 5.6 percent of the 1980 group. For females, the largest decline was in aspirations for clerical work, going from 25.5 percent of the 1972 female respondents to 17.7 percent of the 1980 females. The largest increase in occupational aspirations among females was for managerial careers, rising from 1.3 percent of the 1972 females to 6.5 percent of the 1980 females.

Professional occupations were also the most frequently mentioned occupational aspiration by students at all socioeconomic levels. However, only about 30 percent of the low SES students aspired toward a professional occupation, as contrasted with about 60 percent of the high SES students. Clerical occupations were the second most popular choice for low and middle SES students in both 1972 and 1980 and for high SES students in 1972. By 1980, however, managerial occupations had become the second most popular choice for high SES students, being chosen by 9.5 percent of the group. Aspirations for professional occupations declined by 5.4 percentage points among high SES students between 1972 and 1980, while plans for managerial occupations rose by 4.4 percentage points. Among middle SES students, aspirations for clerical occupations decreased by 5.5 percentage points, and plans for managerial occupations increased by 3.8 percentage points. Aspirations for jobs in clerical occupations declined 6.0 percentage points among low SES students while aspirations for jobs in managerial occupations rose to 2.9 percent in this group.

Results for White, Black and Hispanic students showed similar patterns. Professional occupations were the first choice of 38 percent to 46 percent of the students in each of these three racial/ethnic groups, and clerical occupations were the area with the second highest level of interest. White students showed a slight decline between 1972 and 1980 in their plans for professional occupations while Black and Hispanic students showed a slight increase. Plans for jobs in clerical occupations decreased in all three groups; the decreases were larger for the Black and Hispanic students than for the White students. Crafts occupations were the third most popular choice for White students in both 1972 and 1980. Black and Hispanic students, however, placed technical occupations as their third choice.

It is no surprise to find that almost two-thirds of the 1972 and 1980 students in the academic curriculum aspired to professional occupations. It is somewhat surprising, however, to find that slightly more than a third of the students in the general curriculum had similar aspirations. Clerical occupations were the first choice of vocational students in 1972 but, by 1980, more than 20 percent of these students planned or expected to have a job in a professional occupation by the time they reached age 30. Technical occupations were the second most frequently mentioned area by academic students in both 1972 and in 1980. In 1972, clerical occupations were the second ranked choice among general curriculum students. By 1980, however, craft occupations had gained second place, primarily because of a 3.2 percentage point decline in general curriculum students' aspirations for clerical occupations.

Aspirations for jobs in professional occupations were higher among private and Catholic school students than among public school students, but the professions remained the first choice of students in all three types of schools. Clerical occupations were the second choice of students in all three types of schools in 1972 and for public and Catholic school students in 1980. In 1980, however, private school students placed managerial occupations as their second choice.

The analysis of occupational aspirations by region and by community type follows the pattern already evident. In each group, professional occupations are the dominant choice, although the professionals are chosen less often by rural students than by those in urban or suburban communities. Clerical occupations were the second choice for all regions and for all community types in 1972 and for most regions by community types in 1980. By 1980, however, some variations emerged with students in the North Central region placing craft occupations in second position while those in the West ranked technical occupations as their second highest choice.

In summary, high school students in 1972 and in 1980 were most likely to aspire to a job in a professional occupation. Clerical occupations were the second most popular occupational choice in 1972, but by 1980 there was evidence of declining interest in this type of work and rising interest in managerial and technical work. The questionnaire grouping of a large number of professional occupations makes it impossible to tease apart the likely variations among this type of work, such as the declining interest in teaching and growing interest in law and medicine which has been reported both in the popular press and in other studies of students' occupational aspirations.

F. CAREER VALUES

The student questionnaire asked, in both 1972 and 1980, about the importance of attitudes and values which affect career plans. The scale ranged from 1 = Not important to 3 = Very important. The results are summarized in Table 6-10. As can be seen, although all of these career values increased in importance between 1972 and 1980, their rank ordering did not change. The two highest ranked career values showed increases of small effect size (probably because of ceiling effect). The remaining career values showed moderate-sized increases.

The value placed on having work that is important and interesting increased at about the same rate across sex groups and across curriculum, region, and community type. (See Tables 6-11 to 6-16.) The increase in the importance placed on working with sociable, friendly people was greater for males than for females, and for students of high rather than low SES. The importance placed on the freedom to make one's own decisions increased more for females than for males; it also increased more for nonpublic than for public school students. The increase was greater for Whites than for Blacks in all SES groups. The increase in the value placed on freedom to make one's own decisions had the largest effect size, across all groups, of all the career-related values.

Table 6-10

Changes in Values Related to Career Plans - 1972 and 1980

Value	Mean 1972	Mean 1980	Difference	Effect Size
Work that seems important and interesting	2.77	2.88	0.07*	0.16
Meeting and working with sociable, friendly people	2.49	2.61	0.12*	0.20
Freedom to make own decisions	2.32	2.58	0.26*	0.43
Job security and permanence	2.24	2.50	0.26*	0.38
Good income to start or in a few years	2.12	2.35	0.23*	0.34
Previous work experience in the area	1.73	2.01	0.28*	0.36

*Significant at .05 or less

The importance placed on job security also increased more for females than for males. By 1980, both sexes placed equal value on job security. The increase was greater for high SES than low SES students. In 1972, the importance placed on this value decreased from low to high SES groups; by 1980, the importance was similar in all three SES groups. Students in the academic curriculum and those from suburban communities showed larger increases than those in other curricula and in other types of communities. The general effect of the changes in the students' view of the importance of job security was to make all groups more similar in 1980 than they had been in 1972. The increase was somewhat less for students in the vocational curriculum, who placed the highest importance on this value in 1972, than for students in other curricular areas.

The value placed on having a career with a good income increased more among females than among males and more among high SES students than low SES students. Cross-tabulations by sex and curriculum show the

Table 6-11

IMPORTANCE TO CAREER PLANS: WORK THAT SEEMS IMPORTANT AND INTERESTING TO ME (1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16259	2975979	2.77	0.5	26688	2881077	2.84	0.4	0.43	0.07 *	0.16
SEX:											
MALE	8037	1477860	2.72	0.5	12442	1352601	2.79	0.5	0.47	0.07 *	0.15
FEMALE	8217	1497102	2.81	0.4	13741	1477159	2.88	0.4	0.38	0.07 *	0.19
SES:											
LOW	4647	717850	2.72	0.5	7889	760768	2.80	0.5	0.48	0.08 *	0.17
MIDDLE	7762	1524311	2.77	0.5	12293	1368840	2.84	0.4	0.43	0.07 *	0.18
HIGH	3800	724827	2.82	0.4	5965	698873	2.88	0.4	0.39	0.06 *	0.16
RACE:											
WHITE	12633	2485861	2.77	0.5	19188	2284638	2.85	0.4	0.42	0.07 *	0.18
BLACK	1993	241946	2.75	0.5	3384	307694	2.81	0.5	0.47	0.05 *	0.11
ASIAN-AMERICAN	189	27370	2.79	0.5	349	37777	2.81	0.4	0.45	0.03	0.06
AMERICAN INDIAN	180	30453	2.71	0.5	204	20832	2.72	0.5	0.53	0.01	0.03
MEXICAN-AMERICAN	531	69215	2.76	0.5	1769	94594	2.81	0.4	0.45	0.05	0.10
PUERTO RICAN	94	9580	2.70	0.5	291	16908	2.82	0.4	0.47	0.12	0.26
OTHER HISPANIC	113	17238	2.72	0.5	901	60366	2.76	0.5	0.50	0.04	0.09
SCHOOL TYPE:											
PUBLIC	14573	2641506	2.77	0.5	23254	2587741	2.84	0.4	0.44	0.07 *	0.16
PRIVATE	66	16285	2.82	0.4	838	100035	2.84	0.4	0.42	0.02	0.05
CATHOLIC	1010	231101	2.77	0.5	2596	193302	2.87	0.4	0.40	0.10 *	0.24
GEOGRAPHIC REGION:											
NORTHEAST	3532	789515	2.78	0.5	5447	669288	2.85	0.4	0.43	0.07 *	0.16
NORTH CENTRAL	4485	901714	2.77	0.5	7666	825832	2.84	0.4	0.42	0.08 *	0.18
SOUTH	5342	773103	2.76	0.5	8698	861628	2.82	0.4	0.45	0.06 *	0.13
WEST	2900	511647	2.76	0.5	4877	524330	2.85	0.4	0.43	0.08 *	0.19
CURRICULUM:											
GENERAL	5482	939839	2.72	0.5	9670	1045775	2.81	0.4	0.47	0.09 *	0.19
ACADEMIC	6705	1371675	2.82	0.4	10192	1103813	2.89	0.3	0.37	0.07 *	0.19
VOCATIONAL	4071	664162	2.72	0.5	6441	689790	2.80	0.4	0.47	0.08 *	0.17
COMMUNITY TYPE:											
URBAN	4442	769513	2.78	0.5	6048	569179	2.84	0.4	0.43	0.06 *	0.14
SUBURBAN	7817	1514571	2.78	0.5	12904	1427652	2.85	0.4	0.42	0.07 *	0.16
RURAL	3619	630253	2.73	0.5	7736	884246	2.82	0.4	0.45	0.09 *	0.21

*SIGNIFICANT AT .05 OR LESS

Table 6-12

IMPORTANCE TO CAREER PLANS: MEETING AND WORKING WITH SOCIABLE, FRIENDLY PEOPLE (1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16269	2976408	2.49	0.6	26710	2884009	2.61	0.6	0.60	0.12 *	0.20
SEX:											
MALE	8044	1479396	2.36	0.7	12444	1352436	2.52	0.6	0.63	0.16 *	0.25
FEMALE	8220	1495996	2.62	0.6	13758	1480273	2.70	0.5	0.54	0.07 *	0.14
SES:											
LOW	4662	719522	2.54	0.6	7907	762895	2.62	0.6	0.59	0.08 *	0.14
MIDDLE	7768	1525735	2.49	0.6	12296	1369352	2.62	0.6	0.60	0.12 *	0.21
HIGH	3791	722488	2.44	0.7	5963	699028	2.60	0.6	0.61	0.15 *	0.25
RACE:											
WHITE	12630	2485475	2.48	0.6	19188	2285533	2.61	0.6	0.60	0.13 *	0.22
BLACK	2002	242631	2.62	0.6	3399	309237	2.64	0.6	0.57	0.01	0.03
ASIAN-AMERICAN	190	27456	2.43	0.7	351	37980	2.63	0.6	0.61	0.20 *	0.33
AMERICAN INDIAN	180	30297	2.48	0.7	203	20803	2.57	0.6	0.63	0.09	0.15
MEXICAN-AMERICAN	535	69598	2.63	0.5	1771	94996	2.64	0.6	0.56	0.00	0.01
PUERTO RICAN	92	9292	2.63	0.5	290	16576	2.65	0.6	0.58	0.02	0.04
OTHER HISPANIC	111	17039	2.46	0.8	903	60682	2.66	0.6	0.59	0.20	0.33
SCHOOL TYPE:											
PUBLIC	14584	2642360	2.49	0.6	23277	2590496	2.62	0.6	0.60	0.12 *	0.21
PRIVATE	66	16285	2.50	0.6	835	99957	2.53	0.6	0.62	0.03	0.05
CATHOLIC	1006	230374	2.49	0.6	2598	193555	2.63	0.6	0.58	0.14 *	0.23
GEOGRAPHIC REGION:											
NORTHEAST	3528	788252	2.49	0.6	5455	670086	2.61	0.6	0.60	0.12 *	0.20
NORTH CENTRAL	4485	901719	2.48	0.6	7678	827211	2.61	0.6	0.60	0.13 *	0.22
SOUTH	5352	774130	2.54	0.6	8706	862879	2.62	0.6	0.59	0.08 *	0.13
WEST	2904	512308	2.44	0.7	4871	523833	2.61	0.6	0.61	0.17 *	0.28
CURRICULUM:											
GENERAL	5498	941754	2.49	0.6	9681	1046815	2.63	0.6	0.60	0.13 *	0.22
ACADEMIC	6693	1369575	2.46	0.6	10187	1104335	2.59	0.6	0.61	0.12 *	0.20
VOCATIONAL	4077	664777	2.56	0.6	6463	691307	2.64	0.6	0.58	0.09 *	0.15
COMMUNITY TYPE:											
URBAN	4444	769792	2.53	0.6	6054	569265	2.63	0.6	0.59	0.10 *	0.17
SUBURBAN	7822	1514351	2.48	0.7	12912	1429243	2.61	0.6	0.60	0.13 *	0.22
RURAL	3624	631505	2.49	0.6	7744	885501	2.61	0.6	0.59	0.12 *	0.20

*SIGNIFICANT AT .05 OR LESS

Table 6-13

IMPORTANCE TO CAREER PLANS: FREEDOM TO MAKE MY OWN DECISIONS
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16180	2961363	2.32	0.7	26682	2880465	2.58	0.6	0.60	0.26 *	0.43
SEX:											
MALE	8018	1473568	2.37	0.6	12437	1351737	2.57	0.6	0.60	0.20 *	0.33
FEMALE	8157	1486779	2.27	0.7	13739	1477745	2.60	0.6	0.60	0.32 *	0.54
SES:											
LOW	4617	712879	2.30	0.7	7901	761969	2.56	0.6	0.61	0.26 *	0.43
MIDDLE	7728	1517691	2.30	0.7	12284	1368004	2.57	0.6	0.61	0.26 *	0.44
HIGH	3785	721715	2.38	0.6	5956	698085	2.63	0.5	0.58	0.25 *	0.42
RACE:											
WHITE	12581	2475411	2.31	0.7	19179	2283721	2.58	0.6	0.60	0.27 *	0.45
BLACK	1969	238713	2.45	0.6	3397	308920	2.61	0.6	0.59	0.16 *	0.27
ASIAN-AMERICAN	189	27370	2.29	0.7	350	37841	2.58	0.6	0.59	0.29 *	0.50
AMERICAN INDIAN	182	30614	2.41	0.7	202	20602	2.61	0.5	0.60	0.20	0.34
MEXICAN-AMERICAN	528	68485	2.37	0.6	1765	94799	2.57	0.6	0.60	0.19 *	0.33
PUERTO RICAN	92	9325	2.44	0.6	288	16421	2.62	0.5	0.57	0.18	0.32
OTHER HISPANIC	112	17139	2.22	0.7	901	60324	2.57	0.6	0.58	0.36 *	0.61
SCHOOL TYPE:											
PUBLIC	14506	2628926	2.33	0.7	23251	2587015	2.58	0.6	0.60	0.26 *	0.43
PRIVATE	64	15785	2.14	0.7	836	100157	2.58	0.6	0.60	0.44 *	0.73
CATHOLIC	1009	230819	2.26	0.7	2595	193293	2.59	0.5	0.59	0.33 *	0.56
GEOGRAPHIC REGION:											
NORTHEAST	3502	782198	2.29	0.7	5448	668748	2.59	0.6	0.61	0.30 *	0.49
NORTH CENTRAL	4465	898179	2.32	0.6	7668	826144	2.56	0.6	0.60	0.24 *	0.41
SOUTH	5318	770352	2.34	0.7	8697	862429	2.58	0.6	0.61	0.24 *	0.39
WEST	2895	510634	2.34	0.7	4869	523144	2.60	0.5	0.59	0.26 *	0.44
CURRICULUM:											
GENERAL	5456	935250	2.33	0.7	9681	1046559	2.58	0.6	0.60	0.25 *	0.41
ACADEMIC	6665	1363700	2.33	0.7	10176	1102693	2.59	0.6	0.60	0.26 *	0.43
VOCATIONAL	4058	662110	2.30	0.7	6445	689771	2.58	0.6	0.61	0.28 *	0.47
COMMUNITY TYPE:											
URBAN	4423	766417	2.34	0.7	6055	569332	2.59	0.6	0.61	0.25 *	0.42
SUBURBAN	7778	1506126	2.32	0.7	12888	1426084	2.58	0.6	0.60	0.26 *	0.44
RURAL	3608	628362	2.30	0.7	7739	885049	2.57	0.6	0.60	0.27 *	0.45

*SIGNIFICANT AT .05 OR LESS

Table 6-14

IMPORTANCE TO CAREER PLANS: JOB SECURITY AND PERMANENCE
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16128	2953536	2.24	0.7	26635	2877261	2.50	0.6	0.67	0.26 *	0.38
SEX:											
MALE	7993	1471388	2.29	0.7	12431	1351111	2.50	0.6	0.67	0.21 *	0.31
FEMALE	8130	1481131	2.20	0.7	13696	1474258	2.50	0.6	0.67	0.30 *	0.45
SES:											
LOW	4588	710127	2.31	0.7	7877	760304	2.51	0.6	0.66	0.20 *	0.30
MIDDLE	7721	1515868	2.26	0.7	12269	1366564	2.52	0.6	0.66	0.26 *	0.39
HIGH	3773	719353	2.14	0.7	5953	697954	2.46	0.7	0.70	0.31 *	0.45
RACE:											
WHITE	12571	2472891	2.23	0.7	19162	2281485	2.49	0.6	0.67	0.26 *	0.39
BLACK	1946	235966	2.41	0.7	3371	307278	2.57	0.6	0.63	0.17 *	0.26
ASIAN-AMERICAN	190	27456	2.25	0.7	349	37802	2.57	0.6	0.64	0.33 *	0.51
AMERICAN INDIAN	179	30228	2.32	0.7	202	20681	2.49	0.6	0.66	0.17	0.25
MEXICAN-AMERICAN	522	68035	2.36	0.7	1770	94978	2.51	0.6	0.64	0.15 *	0.24
PUERTO RICAN	90	9232	2.30	0.8	287	16397	2.53	0.7	0.68	0.23	0.33
OTHER HISPANIC	109	16417	2.21	0.7	897	60520	2.52	0.6	0.61	0.30 *	0.50
SCHOOL TYPE:											
PUBLIC	14462	2622897	2.25	0.7	23201	2583725	2.51	0.6	0.66	0.26 *	0.39
PRIVATE	66	16285	2.00	0.8	836	100017	2.28	0.7	0.75	0.29	0.38
CATHOLIC	1003	228929	2.17	0.7	2598	193519	2.49	0.6	0.66	0.32 *	0.48
GEOGRAPHIC REGION:											
NORTHEAST	3489	779676	2.20	0.7	5434	667331	2.48	0.7	0.69	0.28 *	0.41
NORTH CENTRAL	4460	897499	2.25	0.7	7652	825543	2.51	0.6	0.66	0.26 *	0.39
SOUTH	5298	767416	2.29	0.7	8679	860439	2.51	0.6	0.66	0.22 *	0.34
WEST	2881	508945	2.23	0.7	4870	523948	2.49	0.6	0.68	0.26 *	0.38
CURRICULUM:											
GENERAL	5437	932230	2.26	0.7	9646	1044017	2.49	0.6	0.67	0.24 *	0.35
ACADEMIC	6663	1363402	2.18	0.7	10182	1103302	2.48	0.7	0.68	0.30 *	0.44
VOCATIONAL	4027	657600	2.37	0.7	6433	689080	2.55	0.6	0.63	0.18 *	0.29
COMMUNITY TYPE:											
URBAN	4395	762492	2.28	0.7	6034	567943	2.52	0.6	0.67	0.24 *	0.36
SUBURBAN	7760	1503429	2.22	0.7	12883	1426755	2.50	0.6	0.67	0.28 *	0.42
RURAL	3604	628301	2.26	0.7	7718	882563	2.48	0.6	0.66	0.22 *	0.34

*SIGNIFICANT AT .05 OR LESS

Table 6-15

IMPORTANCE TO CAREER PLANS: GOOD INCOME TO START OR WITHIN A FEW YEARS
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16203	2968041	2.12	0.7	26733	2886897	2.35	0.7	0.68	0.23 *	0.34
SEX:											
MALE	8029	1477757	2.20	0.7	12461	1354326	2.39	0.7	0.67	0.18 *	0.28
FEMALE	8169	1489268	2.04	0.7	13756	1479680	2.32	0.7	0.68	0.27 *	0.40
SES:											
LOW	4613	713256	2.23	0.7	7914	763746	2.41	0.6	0.66	0.19 *	0.28
MIDDLE	7750	1522400	2.12	0.7	12313	1371143	2.35	0.7	0.67	0.23 *	0.34
HIGH	3791	723420	2.02	0.7	5966	699463	2.28	0.7	0.70	0.25 *	0.36
RACE:											
WHITE	12612	2481592	2.09	0.7	19213	2287649	2.32	0.7	0.68	0.23 *	0.34
BLACK	1965	239290	2.40	0.7	3395	309531	2.56	0.6	0.62	0.16 *	0.26
ASIAN-AMERICAN	190	27456	2.08	0.7	353	38113	2.33	0.7	0.68	0.25 *	0.37
AMERICAN INDIAN	182	30614	2.25	0.7	203	20805	2.37	0.7	0.69	0.11	0.16
MEXICAN-AMERICAN	527	68874	2.29	0.7	1775	94993	2.41	0.6	0.64	0.12 *	0.19
PUERTO RICAN	91	9322	2.26	0.8	289	16417	2.29	0.7	0.75	0.03	0.03
OTHER HISPANIC	111	16968	2.03	0.8	900	60474	2.37	0.6	0.65	0.34 *	0.52
SCHOOL TYPE:											
PUBLIC	14528	2634987	2.13	0.7	23297	2593264	2.36	0.7	0.67	0.23 *	0.35
PRIVATE	66	16285	1.93	0.7	836	100017	2.15	0.8	0.75	0.22	0.30
CATHOLIC	1008	230835	2.02	0.7	2600	193615	2.30	0.7	0.67	0.28 *	0.42
GEOGRAPHIC REGION:											
NORTHEAST	3513	786063	2.06	0.7	5454	669801	2.33	0.7	0.69	0.26 *	0.38
NORTH CENTRAL	4472	898950	2.12	0.7	7687	829507	2.33	0.7	0.67	0.21 *	0.31
SOUTH	5322	771598	2.20	0.7	8709	862826	2.41	0.6	0.67	0.20 *	0.31
WEST	2896	511430	2.10	0.7	4883	524763	2.33	0.7	0.68	0.23 *	0.34
CURRICULUM:											
GENERAL	5475	938486	2.15	0.7	9698	1048946	2.38	0.7	0.67	0.23 *	0.34
ACADEMIC	6692	1369776	2.03	0.7	10190	1104212	2.27	0.7	0.69	0.24 *	0.34
VOCATIONAL	4035	659477	2.28	0.7	6467	692376	2.44	0.6	0.64	0.17 *	0.26
COMMUNITY TYPE:											
URBAN	4417	766496	2.15	0.7	6071	571389	2.39	0.7	0.68	0.24 *	0.35
SUBURBAN	7799	1511371	2.09	0.7	12909	1429283	2.34	0.7	0.68	0.25 *	0.37
RURAL	3612	629330	2.16	0.7	7753	886225	2.34	0.7	0.67	0.18 *	0.27

*SIGNIFICANT AT .05 OR LESS

Table 6-16

IMPORTANCE TO CAREER PLANS: PREVIOUS WORK EXPERIENCE IN THE AREA
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16246	2975798	1.73	0.8	26734	2886084	2.01	0.8	0.77	0.28 *	0.36
SEX:											
MALE	8045	1481437	1.73	0.8	12469	1354166	1.98	0.8	0.78	0.25 *	0.32
FEMALE	8196	1493345	1.72	0.8	13745	1478885	2.03	0.8	0.77	0.31 *	0.40
SES:											
LOW	4632	716194	1.78	0.8	7913	763806	2.10	0.8	0.77	0.32 *	0.42
MIDDLE	7767	1525640	1.74	0.8	12316	1370152	2.00	0.8	0.78	0.26 *	0.34
HIGH	3797	724811	1.65	0.7	5962	699272	1.91	0.8	0.77	0.26 *	0.34
RACE:											
WHITE	12632	2487469	1.71	0.8	19208	2287157	1.98	0.8	0.77	0.27 *	0.34
BLACK	1985	240266	1.81	0.8	3392	308902	2.15	0.8	0.77	0.34 *	0.44
ASIAN-AMERICAN	188	27004	1.59	0.7	351	38157	2.08	0.8	0.77	0.49 *	0.64
AMERICAN INDIAN	182	30363	1.83	0.8	202	20703	2.09	0.8	0.77	0.26	0.34
MEXICAN-AMERICAN	528	69089	1.91	0.8	1781	94678	2.15	0.8	0.77	0.24 *	0.31
PUERTO RICAN	90	9132	1.64	0.7	293	16745	2.11	0.8	0.78	0.47 *	0.60
OTHER HISPANIC	111	17218	1.69	0.8	903	60780	2.07	0.7	0.75	0.38 *	0.51
SCHOOL TYPE:											
PUBLIC	14566	2641734	1.73	0.8	23299	2592535	2.02	0.8	0.77	0.29 *	0.38
PRIVATE	67	16549	1.65	0.8	838	100274	1.88	0.8	0.79	0.22	0.28
CATHOLIC	1007	230991	1.67	0.8	2597	193274	1.89	0.8	0.78	0.21 *	0.27
GEOGRAPHIC REGION:											
NORTHEAST	3518	787118	1.70	0.8	5442	667545	1.98	0.8	0.78	0.29 *	0.37
NORTH CENTRAL	4485	902441	1.75	0.8	7688	829313	2.01	0.8	0.77	0.25 *	0.33
SOUTH	5337	773000	1.72	0.8	8719	864265	2.00	0.8	0.77	0.28 *	0.36
WEST	2906	513240	1.73	0.8	4885	524961	2.05	0.8	0.77	0.32 *	0.41
CURRICULUM:											
GENERAL	5485	940645	1.75	0.8	9696	1048759	2.03	0.8	0.76	0.28 *	0.37
ACADEMIC	6694	1370706	1.64	0.8	10188	1103210	1.87	0.8	0.78	0.23 *	0.29
VOCATIONAL	4066	664145	1.88	0.8	6477	693199	2.19	0.7	0.76	0.31 *	0.41
COMMUNITY TYPE:											
URBAN	4440	769644	1.74	0.8	6065	570637	2.07	0.8	0.78	0.33 *	0.42
SUBURBAN	7819	1515671	1.70	0.8	12907	1428130	1.99	0.8	0.78	0.29 *	0.37
RURAL	3613	629627	1.77	0.8	7762	887317	2.00	0.8	0.76	0.23 *	0.30

*SIGNIFICANT AT .05 OR LESS

increase to be somewhat greater for both males and females in the general and academic curricula than for those in the vocational curriculum.

The value placed on having previous work experience in a career area also increased more for females than for males and more for low than for middle or high SES students. Cross-tabulations showed larger increases among general and vocational curriculum females than the other sex by curriculum groups.

In summary, although students' career-related values showed a small to moderate increase between 1972 and 1980, the rank ordering of these values did not change. The main trend here appears to be toward an increased emphasis on the extrinsic aspects and rewards of the job (security and pay) rather than on the intrinsic and social aspects of work. A secondary trend is toward careers providing greater autonomy or freedom of choice. This more self-centered concern is consistent with diminishing altruism.

G. LIFE VALUES

The students were asked in 1972 and in 1980 how important they considered each of several life goals or values. The scale ranged from 1 = Not important to 3 = Very important. The results are summarized in Table 6-17. Cross-tabulations by the major classification variables are shown in Tables 6-18 to 6-27. As can be seen, success in work was the most important life goal in both years. Other consistently high-ranking life goals and values were strong friendships, marriage and family, steady work, and better opportunities for one's children. Most of the life goals and values covered in this questionnaire showed little change between 1972 and 1980. However, two showed a moderate increase, two a small increase, and one a moderate decrease.

The life value showing the greatest increase between 1972 and 1980 was making lots of money. It moved from 1.95, slightly below 2.0 midpoint for this scale, to 2.21, or moderately important. Students in 1980 also placed more importance on living close to parents and relatives than did students in 1972. Although this item shows a moderate increase, as indicated by its effect size, it is still one of the lower ranked values. Having steady work and success in work, which were already highly rated values in 1972, became even more highly rated by 1980, although the increase shows only a small effect size (probably because of ceiling effects). The other major change in these life goals and values is the decrease in the importance of working to correct social and economic inequalities. This life value shows a moderate decrease from 2.06, or slightly important, to 1.74, or moderately unimportant.

These data show what other studies of high school students' attitudes and values have shown. Namely, the social issues concern of the late 1960s and early 1970s had diminished considerably by 1980 while more self-centered economic concerns and interest in job success increased.

Table 6-17

Changes in Students' Life Values - 1972 and 1980

Value	Mean 1972	Mean 1980	Difference	Effect Size
Success in Work	2.83	2.87	0.04*	0.11
Strong Friendships	2.77	2.79	0.02*	0.05
Marriage and Family Life	2.77	2.76	-0.01	-0.02
Steady Work	2.75	2.82	0.07*	0.16
Better Opportunities for Your Children	2.60	2.61	0.01	0.02
Working to Correct Inequalities	2.06	1.74	-0.32*	-0.47
Making Lots of Money	1.95	2.21	0.25*	0.40
Being a Community Leader	1.66	1.61	-0.05*	-0.07
Living Close to Parents and Relatives	1.57	1.82	0.25*	0.38
Getting Away from This Area	1.57	1.59	0.02	0.03

*Significant at .05 or less

H. SELF-ESTEEM AND LOCUS OF CONTROL

The student questionnaire included four agree-disagree statements to assess self-esteem. The scale ranged from 1 = Disagree strongly to 4 = Agree strongly. As shown in Table 6-28, the mean 1972 response for all four items was 3.11, on the positive side of the scale's 2.5 midpoint. By 1980 the mean for these four items had risen to 3.19, indicating even higher self-esteem.

When the means are examined for the classification groups, there is a consistent tendency for Blacks to report higher self-esteem than Whites. (See Tables 6-29 to 6-32.) Changes toward more positive self-esteem were greater for males than for females, for high SES than low SES students, and for academic curriculum students in comparison to the general and vocational students.

The questionnaire also included four questions to assess whether the student had an external or internal locus of control, that is whether the students felt they had the power to control their own lives or if life events were beyond their control. The scale used ranged from 1 = I agree strongly (an index of external control) to 4 = I disagree strongly (an index of internal control). The mean 1972 score on each of the four items was on the internal control side of the scale's 2.5 midpoint. By

Table 6-18

IMPORTANCE IN YOUR LIFE OF SUCCESS IN WORK
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16564	3024733	2.83	0.4	27532	2967920	2.87	0.4	0.38	0.04 *	0.11
SEX:											
MALE	8211	1505685	2.85	0.4	12759	1385410	2.88	0.4	0.38	0.03 *	0.08
FEMALE	8348	1518032	2.82	0.4	13984	1502215	2.87	0.4	0.38	0.05 *	0.14
SES:											
LOW	4778	735575	2.84	0.4	8193	790025	2.85	0.4	0.39	0.01	0.02
MIDDLE	7879	1545821	2.84	0.4	12595	1400431	2.88	0.4	0.37	0.04 *	0.12
HIGH	3846	732869	2.82	0.4	6095	713781	2.89	0.3	0.37	0.07 *	0.20
RACE:											
WHITE	12789	2516140	2.83	0.4	19607	2334727	2.87	0.4	0.38	0.05 *	0.12
BLACK	2088	252548	2.92	0.3	3588	325612	2.91	0.3	0.32	-0.01	-0.04
ASIAN-AMERICAN	191	27563	2.78	0.4	356	38118	2.87	0.4	0.39	0.09	0.24
AMERICAN INDIAN	184	30573	2.87	0.3	206	21049	2.76	0.5	0.42	-0.11	-0.27
MEXICAN-AMERICAN	550	72126	2.87	0.4	1844	98757	2.85	0.4	0.40	-0.02	-0.05
PUERTO RICAN	95	9676	2.79	0.4	300	17543	2.80	0.5	0.49	0.01	0.01
OTHER HISPANIC	122	18844	2.86	0.4	931	63453	2.85	0.4	0.40	-0.01	-0.04
SCHOOL TYPE:											
PUBLIC	14846	2683897	2.83	0.4	24019	2667797	2.87	0.4	0.38	0.04 *	0.10
PRIVATE	66	16256	2.76	0.4	865	103422	2.85	0.4	0.38	0.09	0.25
CATHOLIC	1024	235113	2.81	0.4	2648	196701	2.88	0.3	0.37	0.07 *	0.19
GEOGRAPHIC REGION:											
NORTHEAST	3592	799800	2.82	0.4	5587	686806	2.88	0.4	0.38	0.06 *	0.16
NORTH CENTRAL	4542	912316	2.82	0.4	7911	849794	2.87	0.4	0.38	0.05 *	0.13
SOUTH	5467	790422	2.87	0.4	9016	894121	2.88	0.4	0.36	0.00	0.01
WEST	2963	522195	2.81	0.4	5018	537198	2.86	0.4	0.40	0.05 *	0.13
CURRICULUM:											
GENERAL	5627	962199	2.81	0.4	10024	1083512	2.85	0.4	0.41	0.05 *	0.12
ACADEMIC	6780	1385720	2.84	0.4	10392	1123937	2.90	0.3	0.35	0.06 *	0.16
VOCATIONAL	4156	676512	2.85	0.4	6712	716558	2.86	0.4	0.39	0.01	0.04
COMMUNITY TYPE:											
URBAN	4533	783372	2.84	0.4	6293	589655	2.89	0.3	0.37	0.05 *	0.14
SUBURBAN	7918	1532387	2.82	0.4	13270	1467863	2.87	0.4	0.38	0.05 *	0.13
RURAL	3667	637121	2.86	0.4	7969	910402	2.86	0.4	0.38	0.01	0.02

*SIGNIFICANT AT .05 OR LESS

Table 6-19

IMPORTANCE IN YOUR LIFE OF STRONG FRIENDSHIPS
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16520	3018899	2.77	0.5	27444	2958134	2.79	0.4	0.45	0.02 *	0.05
SEX:											
MALE	8191	1503351	2.79	0.5	12719	1380830	2.79	0.4	0.45	0.01	0.02
FEMALE	8324	1514531	2.76	0.5	13946	1498225	2.80	0.4	0.46	0.04 *	0.09
SES:											
LOW	4752	732432	2.70	0.5	8149	785893	2.72	0.5	0.51	0.01	0.03
MIDDLE	7865	1543730	2.78	0.5	12571	1397333	2.81	0.4	0.44	0.03 *	0.06
HIGH	3845	732657	2.82	0.4	6085	712274	2.87	0.4	0.39	0.05 *	0.13
RACE:											
WHITE	12781	2514445	2.80	0.4	19568	2329726	2.84	0.4	0.41	0.04 *	0.09
BLACK	2059	249514	2.54	0.6	3557	323054	2.54	0.6	0.61	0.00	0.00
ASIAN-AMERICAN	190	27495	2.75	0.5	357	38257	2.84	0.4	0.43	0.09	0.21
AMERICAN INDIAN	185	30651	2.72	0.5	203	20801	2.70	0.5	0.51	-0.02	-0.04
MEXICAN-AMERICAN	546	71520	2.68	0.5	1843	98571	2.69	0.5	0.52	0.00	0.01
PUERTO RICAN	93	9469	2.52	0.6	294	16940	2.62	0.6	0.62	0.10	0.16
OTHER HISPANIC	120	18468	2.60	0.6	925	62680	2.73	0.5	0.50	0.13	0.26
SCHOOL TYPE:											
PUBLIC	14810	2679247	2.77	0.5	23932	2658281	2.79	0.5	0.46	0.02 *	0.04
PRIVATE	66	16256	2.82	0.4	864	103264	2.85	0.4	0.39	0.03	0.07
CATHOLIC	1022	234794	2.84	0.4	2648	196588	2.86	0.4	0.39	0.01	0.04
GEOGRAPHIC REGION:											
NORTHEAST	3585	798477	2.78	0.5	5569	684730	2.81	0.4	0.44	0.03	0.06
NORTH CENTRAL	4534	911280	2.77	0.5	7891	847972	2.81	0.4	0.44	0.03 *	0.08
SOUTH	5446	787960	2.76	0.5	8984	890555	2.76	0.5	0.48	0.00	0.00
WEST	2955	521182	2.77	0.5	5000	534876	2.82	0.4	0.44	0.04 *	0.10
CURRICULUM:											
GENERAL	5607	959812	2.75	0.5	9996	1080313	2.78	0.5	0.47	0.03 *	0.06
ACADEMIC	6774	1384495	2.80	0.4	10368	1121725	2.84	0.4	0.41	0.04 *	0.09
VOCATIONAL	4138	674290	2.73	0.5	6679	712715	2.74	0.5	0.49	0.01	0.02
COMMUNITY TYPE:											
URBAN	4519	781754	2.75	0.5	6257	585688	2.75	0.5	0.49	0.00	0.01
SUBURBAN	7904	1530083	2.79	0.5	13249	1465057	2.81	0.4	0.44	0.02 *	0.05
RURAL	3660	636318	2.77	0.5	7938	907388	2.80	0.4	0.45	0.03	0.06

*SIGNIFICANT AT .05 OR LESS

Table 6-20

IMPORTANCE IN YOUR LIFE OF MARRIAGE AND FAMILY LIFE
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16494	3013069	2.77	0.5	27486	2961403	2.76	0.5	0.53	-0.01	-0.02
SEX:											
MALE	8167	1499247	2.72	0.6	12730	1380889	2.72	0.6	0.57	-0.00	-0.01
FEMALE	8322	1512804	2.81	0.5	13969	1500598	2.80	0.5	0.48	-0.01	-0.03
SES:											
LOW	4757	733139	2.79	0.5	8177	787823	2.75	0.5	0.53	-0.04 *	-0.08
MIDDLE	7852	1540666	2.77	0.5	12569	1397334	2.77	0.5	0.52	-0.00	-0.01
HIGH	3829	729360	2.74	0.6	6087	712566	2.76	0.5	0.53	0.03	0.05
RACE:											
WHITE	12750	2507850	2.77	0.5	19571	2329654	2.77	0.5	0.51	-0.00	-0.00
BLACK	2065	250251	2.75	0.6	3584	325720	2.69	0.6	0.59	-0.06 *	-0.10
ASIAN-AMERICAN	191	27592	2.61	0.6	357	38296	2.76	0.5	0.57	0.16	0.27
AMERICAN INDIAN	186	30838	2.77	0.6	201	20505	2.60	0.7	0.62	-0.17	-0.27
MEXICAN-AMERICAN	547	71796	2.79	0.5	1845	98702	2.74	0.6	0.55	-0.05	-0.10
PUERTO RICAN	95	9666	2.87	0.4	297	17181	2.73	0.6	0.55	-0.14	-0.26
OTHER HISPANIC	120	18446	2.74	0.6	933	63426	2.79	0.5	0.51	0.05	0.10
SCHOOL TYPE:											
PUBLIC	14784	2673380	2.77	0.5	23975	2661860	2.76	0.5	0.53	-0.01	-0.02
PRIVATE	66	16256	2.65	0.7	862	102850	2.74	0.5	0.54	0.09	0.17
CATHOLIC	1023	234792	2.76	0.5	2649	196694	2.80	0.5	0.50	0.04	0.08
GEOGRAPHIC REGION:											
NORTHEAST	3579	796283	2.76	0.5	5575	684464	2.73	0.5	0.54	-0.02	-0.04
NORTH CENTRAL	4528	910051	2.76	0.5	7898	848580	2.77	0.5	0.52	0.00	0.01
SOUTH	5435	786183	2.81	0.5	9008	892826	2.77	0.5	0.51	-0.03 *	-0.06
WEST	2952	520551	2.74	0.6	5005	535534	2.76	0.5	0.55	0.02	0.04
CURRICULUM:											
GENERAL	5595	958147	2.77	0.5	9998	1080582	2.75	0.5	0.54	-0.01	-0.03
ACADEMIC	6755	1380231	2.76	0.5	10384	1122705	2.77	0.5	0.51	0.02	0.03
VOCATIONAL	4143	674389	2.79	0.5	6699	714491	2.75	0.5	0.53	-0.04 *	-0.08
COMMUNITY TYPE:											
URBAN	4512	781230	2.77	0.5	6286	588784	2.74	0.5	0.54	-0.03	-0.05
SUBURBAN	7893	1526548	2.76	0.5	13246	1463946	2.76	0.5	0.53	-0.00	-0.00
RURAL	3656	635215	2.80	0.5	7954	908673	2.77	0.5	0.51	-0.03	-0.06

*SIGNIFICANT AT .05 OR LESS

Table 6-21

IMPORTANCE IN YOUR LIFE OF STEADY WORK
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16483	3010711	2.75	0.5	27331	2945918	2.82	0.4	0.45	0.07 *	0.17
SEX:											
MALE	8168	1498935	2.79	0.5	12667	1375468	2.84	0.4	0.44	0.05 *	0.10
FEMALE	8310	1510759	2.71	0.5	13893	1492723	2.81	0.4	0.46	0.11 *	0.23
SES:											
LOW	4742	730595	2.81	0.4	8118	782356	2.82	0.4	0.44	0.01	0.02
MIDDLE	7843	1538703	2.76	0.5	12528	1392962	2.83	0.4	0.44	0.08 *	0.17
HIGH	3838	731015	2.67	0.5	6053	708756	2.82	0.4	0.48	0.15 *	0.31
RACE:											
WHITE	12747	2506649	2.74	0.5	19476	2319415	2.83	0.4	0.45	0.09 *	0.19
BLACK	2065	250182	2.85	0.4	3552	322572	2.84	0.4	0.42	-0.01	-0.03
ASIAN-AMERICAN	190	27478	2.76	0.5	357	38343	2.77	0.5	0.48	0.00	0.01
AMERICAN INDIAN	183	30327	2.74	0.5	204	20809	2.78	0.5	0.51	0.04	0.07
MEXICAN-AMERICAN	544	71290	2.85	0.4	1832	97886	2.82	0.4	0.43	-0.03	-0.07
PUERTO RICAN	93	9479	2.78	0.4	296	16998	2.81	0.5	0.45	0.03	0.06
OTHER HISPANIC	119	18383	2.75	0.5	924	62386	2.78	0.5	0.47	0.04	0.08
SCHOOL TYPE:											
PUBLIC	14780	2672264	2.75	0.5	23832	2647616	2.83	0.4	0.45	0.08 *	0.17
PRIVATE	66	16256	2.48	0.7	861	102571	2.76	0.5	0.50	0.28	0.56
CATHOLIC	1017	233819	2.72	0.5	2638	195730	2.83	0.4	0.44	0.11 *	0.24
GEOGRAPHIC REGION:											
NORTHEAST	3583	796959	2.72	0.5	5547	681323	2.83	0.4	0.46	0.11 *	0.24
NORTH CENTRAL	4523	909467	2.75	0.5	7850	843562	2.83	0.4	0.44	0.09 *	0.19
SOUTH	5432	785300	2.79	0.5	8950	887293	2.83	0.4	0.44	0.03 *	0.07
WEST	2945	518985	2.73	0.5	4984	533740	2.80	0.5	0.48	0.07 *	0.15
CURRICULUM:											
GENERAL	5584	955370	2.76	0.5	9944	1075055	2.82	0.4	0.45	0.06 *	0.13
ACADEMIC	6759	1381641	2.71	0.5	10336	1117735	2.82	0.4	0.46	0.11 *	0.24
VOCATIONAL	4140	673700	2.81	0.4	6653	710347	2.83	0.4	0.43	0.02	0.05
COMMUNITY TYPE:											
URBAN	4506	779145	2.76	0.5	6232	583152	2.83	0.4	0.44	0.07 *	0.16
SUBURBAN	7887	1526524	2.73	0.5	13191	1459224	2.82	0.4	0.46	0.09 *	0.21
RURAL	3652	634792	2.79	0.5	7908	903542	2.82	0.4	0.44	0.03 *	0.08

*SIGNIFICANT AT .05 OR LESS

Table 6-22

IMPORTANCE IN YOUR LIFE OF BETTER OPPORTUNITIES FOR YOUR CHILDREN
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16430	3002472	2.60	0.6	27311	2942560	2.61	0.6	0.60	0.01	0.02
SEX:											
MALE	8141	1495145	2.60	0.6	12648	1372073	2.62	0.6	0.60	0.02	0.03
FEMALE	8284	1506310	2.61	0.6	13896	1492444	2.61	0.6	0.60	0.00	0.00
SES:											
LOW	4746	731733	2.75	0.5	8116	782241	2.72	0.5	0.52	-0.03 *	-0.06
MIDDLE	7816	1534122	2.62	0.6	12516	1390706	2.62	0.6	0.59	0.00	0.01
HIGH	3810	726533	2.42	0.7	6048	708019	2.47	0.6	0.66	0.05 *	0.08
RACE:											
WHITE	12696	2498114	2.57	0.6	19474	2318083	2.57	0.6	0.61	0.00	0.01
BLACK	2059	249783	2.86	0.4	3540	321514	2.82	0.5	0.45	-0.04 *	-0.10
ASIAN-AMERICAN	189	27365	2.65	0.6	354	37839	2.71	0.5	0.55	0.06	0.10
AMERICAN INDIAN	184	30573	2.74	0.6	202	20619	2.60	0.6	0.60	-0.14	-0.23
MEXICAN-AMERICAN	546	71587	2.82	0.4	1836	97893	2.78	0.5	0.47	-0.04	-0.08
PUERTO RICAN	94	9578	2.84	0.4	296	16996	2.83	0.5	0.44	-0.01	-0.02
OTHER HISPANIC	118	18251	2.78	0.5	922	62875	2.69	0.6	0.54	-0.09	-0.16
SCHOOL TYPE:											
PUBLIC	14730	2664714	2.60	0.6	23819	2644096	2.62	0.6	0.59	0.02	0.03
PRIVATE	65	15941	2.34	0.8	854	102248	2.41	0.7	0.71	0.07	0.10
CATHOLIC	1019	233862	2.55	0.6	2638	196217	2.59	0.6	0.60	0.04	0.07
GEOGRAPHIC REGION:											
NORTHEAST	3566	792657	2.56	0.6	5534	679542	2.58	0.6	0.62	0.02	0.03
NORTH CENTRAL	4506	906784	2.59	0.6	7852	844235	2.57	0.6	0.60	-0.02	-0.03
SOUTH	5424	785024	2.70	0.6	8964	888445	2.70	0.5	0.55	0.00	0.00
WEST	2934	518006	2.54	0.6	4961	530339	2.57	0.6	0.63	0.03	0.05
CURRICULUM:											
GENERAL	5576	955050	2.64	0.6	9942	1073769	2.63	0.6	0.59	-0.01	-0.02
ACADEMIC	6726	1374550	2.53	0.6	10311	1115222	2.56	0.6	0.62	0.04 *	0.06
VOCATIONAL	4127	672569	2.70	0.5	6659	710421	2.67	0.6	0.55	-0.04	-0.07
COMMUNITY TYPE:											
URBAN	4496	777778	2.65	0.6	6233	582812	2.68	0.6	0.57	0.04	0.06
SUBURBAN	7857	1520938	2.55	0.6	13158	1454743	2.58	0.6	0.62	0.03 *	0.05
RURAL	3644	633785	2.66	0.6	7920	905005	2.61	0.6	0.57	-0.05 *	-0.08

*SIGNIFICANT AT .05 OR LESS

Table 6-23

IMPORTANCE IN YOUR LIFE OF WORKING TO CORRECT SOCIAL AND ECONOMIC INEQUALITIES
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16466	3008658	2.06	0.7	27270	2938610	1.74	0.7	0.68	-0.32 *	-0.47
SEX:											
MALE	8154	1496944	1.96	0.7	12634	1371064	1.69	0.7	0.69	-0.27 *	-0.40
FEMALE	8308	1510948	2.15	0.7	13885	1491213	1.77	0.7	0.67	-0.38 *	-0.57
SES:											
LOW	4739	730286	2.11	0.7	8113	782289	1.79	0.7	0.68	-0.32 *	-0.48
MIDDLE	7839	1538397	2.03	0.7	12487	1388011	1.71	0.7	0.68	-0.32 *	-0.47
HIGH	3830	729969	2.07	0.7	6051	707886	1.72	0.7	0.69	-0.35 *	-0.51
RACE:											
WHITE	12735	2505190	2.02	0.7	19464	2316288	1.67	0.7	0.67	-0.35 *	-0.52
BLACK	2063	249972	2.37	0.7	3523	319926	2.03	0.7	0.68	-0.34 *	-0.50
ASIAN-AMERICAN	190	27283	2.02	0.7	355	38074	1.87	0.7	0.68	-0.15	-0.23
AMERICAN INDIAN	180	29933	2.11	0.7	202	20657	1.86	0.6	0.66	-0.25 *	-0.39
MEXICAN-AMERICAN	542	71135	2.21	0.6	1833	97754	1.90	0.7	0.67	-0.31 *	-0.47
PUERTO RICAN	95	9676	2.20	0.6	294	17100	1.91	0.7	0.69	-0.29 *	-0.42
OTHER HISPANIC	118	18249	2.05	0.7	912	61724	1.85	0.7	0.70	-0.19	-0.27
SCHOOL TYPE:											
PUBLIC	14755	2668562	2.05	0.7	23775	2640827	1.74	0.7	0.68	-0.31 *	-0.46
PRIVATE	66	16256	2.08	0.7	855	101733	1.69	0.7	0.70	-0.39 *	-0.55
CATHOLIC	1022	235021	2.08	0.7	2640	196051	1.69	0.7	0.66	-0.39 *	-0.59
GEOGRAPHIC REGION:											
NORTHEAST	3574	795879	2.03	0.7	5541	679910	1.72	0.7	0.69	-0.31 *	-0.45
NORTH CENTRAL	4515	908032	2.03	0.7	7831	841818	1.68	0.7	0.67	-0.36 *	-0.53
SOUTH	5432	785368	2.14	0.7	8936	885771	1.80	0.7	0.68	-0.34 *	-0.49
WEST	2945	519378	2.01	0.7	4962	531111	1.73	0.7	0.68	-0.28 *	-0.42
CURRICULUM:											
GENERAL	5584	955064	2.02	0.7	9915	1071030	1.70	0.7	0.67	-0.32 *	-0.47
ACADEMIC	6753	1380876	2.10	0.7	10341	1118285	1.78	0.7	0.69	-0.32 *	-0.47
VOCATIONAL	4128	672416	2.02	0.7	6618	706341	1.71	0.7	0.67	-0.31 *	-0.46
COMMUNITY TYPE:											
URBAN	4503	779282	2.10	0.7	6214	581513	1.80	0.7	0.69	-0.29 *	-0.42
SUBURBAN	7879	1524703	2.04	0.7	13161	1454818	1.71	0.7	0.68	-0.34 *	-0.49
RURAL	3652	634754	2.04	0.7	7895	902278	1.73	0.7	0.67	-0.31 *	-0.46

*SIGNIFICANT AT .05 OR LESS

Table 6-24

IMPORTANCE IN YOUR LIFE OF LOTS OF MONEY (1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16498	3013312	1.95	0.6	27440	2958572	2.21	0.6	0.63	0.25 *	0.40
SEX:											
MALE	8183	1501168	2.10	0.6	12715	1381571	2.33	0.6	0.62	0.22 *	0.36
FEMALE	8310	1511127	1.81	0.6	13945	1498039	2.09	0.6	0.60	0.28 *	0.47
SES:											
LOW	4748	731283	1.99	0.6	8154	786223	2.20	0.6	0.63	0.21 *	0.33
MIDDLE	7855	1540808	1.94	0.6	12561	1396763	2.20	0.6	0.62	0.26 *	0.42
HIGH	3837	731141	1.94	0.6	6084	712588	2.21	0.6	0.63	0.27 *	0.43
RACE:											
WHITE	12760	2509566	1.93	0.6	19544	2327886	2.18	0.6	0.62	0.25 *	0.40
BLACK	2063	249684	2.16	0.6	3571	324358	2.37	0.6	0.63	0.21 *	0.34
ASIAN-AMERICAN	191	27531	1.98	0.6	356	38224	2.33	0.6	0.61	0.35 *	0.57
AMERICAN INDIAN	184	30573	2.09	0.7	203	20981	2.23	0.6	0.65	0.14	0.21
MEXICAN-AMERICAN	547	71924	2.03	0.6	1844	98769	2.22	0.6	0.63	0.19 *	0.30
PUERTO RICAN	92	9394	1.97	0.6	298	17285	2.30	0.6	0.60	0.33 *	0.55
OTHER HISPANIC	118	17966	1.88	0.6	927	62616	2.23	0.6	0.64	0.35 *	0.55
SCHOOL TYPE:											
PUBLIC	14788	2673845	1.96	0.6	23936	2659224	2.21	0.6	0.62	0.25 *	0.41
PRIVATE	65	15963	1.71	0.6	864	103264	2.07	0.7	0.68	0.36 *	0.54
CATHOLIC	1022	234609	1.88	0.6	2640	196084	2.16	0.6	0.60	0.29 *	0.47
GEOGRAPHIC REGION:											
NORTHEAST	3579	796500	1.92	0.6	5572	684693	2.22	0.6	0.63	0.30 *	0.48
NORTH CENTRAL	4524	909243	1.95	0.6	7385	847445	2.19	0.6	0.61	0.24 *	0.39
SOUTH	5440	786561	2.00	0.6	8935	890764	2.21	0.6	0.63	0.22 *	0.35
WEST	2955	521007	1.94	0.6	4998	535670	2.20	0.6	0.64	0.25 *	0.39
CURRICULUM:											
GENERAL	5599	957403	1.97	0.6	9989	1079281	2.22	0.6	0.63	0.25 *	0.40
ACADEMIC	6765	1382369	1.92	0.6	10375	1123051	2.17	0.6	0.62	0.24 *	0.39
VOCATIONAL	4133	673237	1.99	0.6	6675	712867	2.24	0.6	0.63	0.24 *	0.39
COMMUNITY TYPE:											
URBAN	4507	778654	1.98	0.6	6270	587248	2.25	0.6	0.63	0.27 *	0.43
SUBURBAN	7897	1528528	1.94	0.6	13228	1463723	2.21	0.6	0.62	0.27 *	0.44
RURAL	3655	635390	1.95	0.6	7942	907601	2.17	0.6	0.62	0.22 *	0.35

*SIGNIFICANT AT .05 OR LESS

Table 6-25

IMPORTANCE IN YOUR LIFE OF BEING A COMMUNITY LEADER
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16474	3009664	1.66	0.7	27179	2932713	1.61	0.7	0.66	-0.05 *	-0.07
SEX:											
MALE	8160	1497586	1.74	0.7	12595	1369329	1.69	0.7	0.68	-0.05 *	-0.07
FEMALE	8309	1511061	1.57	0.6	13817	1485640	1.53	0.6	0.63	-0.04 *	-0.07
SES:											
LOW	4737	730644	1.72	0.7	8058	777775	1.55	0.6	0.66	-0.17 *	-0.26
MIDDLE	7845	1539054	1.63	0.7	12440	1384422	1.59	0.7	0.66	-0.04 *	-0.06
HIGH	3833	729716	1.64	0.7	6053	708520	1.70	0.7	0.67	0.05 *	0.08
RACE:											
WHITE	12748	2507016	1.63	0.7	19407	2312300	1.58	0.6	0.65	-0.05 *	-0.08
BLACK	2060	249667	1.92	0.7	3502	317074	1.73	0.7	0.71	-0.19 *	-0.26
ASIAN-AMERICAN	190	27517	1.57	0.6	356	38294	1.75	0.7	0.68	0.18	0.26
AMERICAN INDIAN	181	29947	1.78	0.7	200	20518	1.70	0.7	0.72	-0.08	-0.11
MEXICAN-AMERICAN	543	71140	1.81	0.7	1820	97603	1.70	0.7	0.70	-0.11	-0.15
PUERTO RICAN	94	9578	1.84	0.7	293	16956	1.72	0.7	0.73	-0.11	-0.16
OTHER HISPANIC	121	18565	1.63	0.7	914	62292	1.71	0.7	0.70	0.08	0.11
SCHOOL TYPE:											
PUBLIC	14772	2671674	1.65	0.7	23705	2636079	1.60	0.7	0.66	-0.05 *	-0.08
PRIVATE	66	16256	1.60	0.7	853	101355	1.67	0.7	0.68	0.08	0.11
CATHOLIC	1016	233204	1.66	0.7	2621	195278	1.62	0.6	0.65	-0.04	-0.05
GEOGRAPHIC REGION:											
NORTHEAST	3579	795981	1.55	0.6	5513	677800	1.54	0.6	0.63	-0.01	-0.02
NORTH CENTRAL	4519	908749	1.65	0.7	7830	841853	1.58	0.6	0.65	-0.07 *	-0.11
SOUTH	5433	785808	1.83	0.7	8886	881441	1.71	0.7	0.70	-0.12 *	-0.17
WEST	2943	519125	1.56	0.6	4950	531618	1.57	0.6	0.65	0.00	0.01
CURRICULUM:											
GENERAL	5587	955843	1.62	0.7	9885	1069597	1.56	0.6	0.65	-0.06 *	-0.09
ACADEMIC	6754	1380254	1.70	0.7	10295	1114345	1.70	0.7	0.68	0.01	0.01
VOCATIONAL	4132	673264	1.63	0.7	6601	705827	1.53	0.6	0.65	-0.10 *	-0.15
COMMUNITY TYPE:											
URBAN	4510	779212	1.66	0.7	6183	579759	1.64	0.7	0.67	-0.02	-0.03
SUBURBAN	7877	1525284	1.63	0.7	13141	1455463	1.57	0.6	0.66	-0.05 *	-0.08
RURAL	3651	634837	1.72	0.7	7855	897490	1.64	0.7	0.67	-0.09 *	-0.13

*SIGNIFICANT AT .05 OR LESS

Table 6-26

IMPORTANCE IN YOUR LIFE OF LIVING CLOSE TO PARENTS AND RELATIVES
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16492	3014393	1.57	0.6	27322	2946669	1.82	0.7	0.65	0.25 *	0.38
SEX:											
MALE	8170	1499806	1.55	0.6	12646	1373987	1.79	0.7	0.64	0.25 *	0.38
FEMALE	8317	1513570	1.60	0.6	13911	1495159	1.84	0.7	0.65	0.24 *	0.37
SES:											
LOW	4740	730888	1.62	0.6	8108	782036	1.84	0.7	0.66	0.22 *	0.33
MIDDLE	7861	1543064	1.59	0.6	12516	1392478	1.83	0.6	0.64	0.24 *	0.37
HIGH	3832	730191	1.48	0.6	6064	710148	1.76	0.7	0.63	0.28 *	0.44
RACE:											
WHITE	12756	2510248	1.56	0.6	19482	2320368	1.80	0.6	0.64	0.25 *	0.39
BLACK	2059	249487	1.61	0.7	3546	322733	1.79	0.7	0.67	0.18 *	0.28
ASIAN-AMERICAN	191	27609	1.67	0.7	357	38441	2.03	0.7	0.69	0.37 *	0.54
AMERICAN INDIAN	184	30573	1.64	0.7	200	20410	1.83	0.7	0.70	0.19	0.27
MEXICAN-AMERICAN	546	71646	1.73	0.7	1836	98079	1.99	0.7	0.68	0.27 *	0.40
PUERTO RICAN	94	9578	1.78	0.7	292	16668	1.97	0.7	0.70	0.19	0.27
OTHER HISPANIC	120	18394	1.84	0.7	924	62593	1.93	0.7	0.68	0.09	0.14
SCHOOL TYPE:											
PUBLIC	14780	2674483	1.57	0.6	23820	2647844	1.81	0.7	0.65	0.25 *	0.38
PRIVATE	66	16256	1.57	0.7	858	102670	1.79	0.7	0.67	0.23	0.34
CATHOLIC	1023	234951	1.62	0.6	2644	196155	1.88	0.6	0.64	0.26 *	0.41
GEOGRAPHIC REGION:											
NORTHEAST	3581	797307	1.58	0.6	5552	682282	1.82	0.7	0.65	0.24 *	0.37
NORTH CENTRAL	4524	909950	1.54	0.6	7852	844302	1.80	0.6	0.63	0.25 *	0.40
SOUTH	5430	785795	1.62	0.7	8943	887059	1.84	0.7	0.66	0.22 *	0.33
WEST	2957	521341	1.54	0.6	4975	533026	1.81	0.7	0.64	0.27 *	0.42
CURRICULUM:											
GENERAL	5592	957727	1.59	0.6	9943	1074891	1.81	0.7	0.65	0.22 *	0.34
ACADEMIC	6761	1382429	1.53	0.6	10343	1119428	1.80	0.6	0.63	0.27 *	0.42
VOCATIONAL	4138	673934	1.63	0.7	6642	709595	1.85	0.7	0.66	0.22 *	0.34
COMMUNITY TYPE:											
URBAN	4514	781255	1.61	0.6	6229	583721	1.85	0.7	0.66	0.24 *	0.37
SUBURBAN	7898	1526911	1.55	0.6	13192	1459889	1.82	0.7	0.64	0.27 *	0.42
RURAL	3656	635974	1.59	0.6	7901	903060	1.80	0.7	0.65	0.21 *	0.32

*SIGNIFICANT AT .05 OR LESS

Table 6-27

IMPORTANCE IN YOUR LIFE OF GETTING AWAY FROM THIS AREA OF THE COUNTRY
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16474	3011330	1.57	0.7	27366	2949328	1.59	0.7	0.73	0.02	0.03
SEX:											
MALE	8156	1497036	1.56	0.7	12679	1375593	1.60	0.7	0.73	0.04 *	0.05
FEMALE	8313	1513277	1.59	0.7	13924	1496128	1.58	0.7	0.73	-0.01	-0.01
SES:											
LOW	4731	729432	1.61	0.7	8129	783367	1.64	0.7	0.74	0.03	0.04
MIDDLE	7850	1541081	1.56	0.7	12537	1393520	1.58	0.7	0.73	0.02	0.02
HIGH	3835	730682	1.55	0.7	6069	710491	1.55	0.7	0.72	-0.00	-0.00
RACE:											
WHITE	12755	2509355	1.56	0.7	19521	2323825	1.56	0.7	0.72	0.00	0.00
BLACK	2049	248403	1.69	0.8	3537	321187	1.78	0.8	0.76	0.08 *	0.11
ASIAN-AMERICAN	189	27173	1.54	0.7	357	38257	1.42	0.7	0.66	-0.13	-0.19
AMERICAN INDIAN	185	30651	1.65	0.7	204	20810	1.79	0.8	0.74	0.14	0.19
MEXICAN-AMERICAN	544	71387	1.55	0.7	1835	97749	1.61	0.7	0.71	0.07	0.09
PUERTO RICAN	93	9408	1.72	0.7	297	17181	1.71	0.7	0.73	-0.01	-0.01
OTHER HISPANIC	119	18414	1.49	0.7	924	62567	1.66	0.7	0.74	0.16	0.22
SCHOOL TYPE:											
PUBLIC	14769	2672242	1.58	0.7	23861	2649980	1.61	0.7	0.73	0.02	0.03
PRIVATE	66	16256	1.44	0.6	860	102920	1.44	0.7	0.65	-0.00	-0.00
CATHOLIC	1022	234816	1.48	0.7	2645	196428	1.48	0.7	0.68	0.00	0.00
GEOGRAPHIC REGION:											
NORTHEAST	3578	796960	1.60	0.7	5550	681697	1.66	0.8	0.75	0.06 *	0.08
NORTH CENTRAL	4521	909274	1.59	0.7	7869	845980	1.61	0.7	0.73	0.02	0.02
SOUTH	5422	784705	1.53	0.7	8958	887846	1.57	0.7	0.72	0.04	0.05
WEST	2953	520392	1.57	0.7	4989	533804	1.52	0.7	0.71	-0.05	-0.06
CURRICULUM:											
GENERAL	5588	956907	1.62	0.7	9966	1076354	1.63	0.7	0.74	0.01	0.02
ACADEMIC	6758	1380911	1.54	0.7	10356	1119967	1.53	0.7	0.71	-0.00	-0.00
VOCATIONAL	4127	673211	1.59	0.7	6645	709764	1.62	0.7	0.73	0.03	0.04
COMMUNITY TYPE:											
URBAN	4504	779536	1.57	0.7	6242	584651	1.59	0.7	0.73	0.02	0.02
SUBURBAN	7884	1526197	1.58	0.7	13198	1458740	1.57	0.7	0.72	-0.01	-0.02
RURAL	3650	634965	1.56	0.7	7926	905937	1.64	0.7	0.74	0.08 *	0.11

*SIGNIFICANT AT .05 OR LESS

Table 6-28

Changes in Self-Esteem and Locus Control

	Mean 1972	Mean 1980	Difference	Effect Size
Self-Esteem (Scale: 1 = Disagree to 4 = Agree)				
I feel I am a person of worth.	3.24	3.29	0.05*	0.08
I am able to do things as well as most other people.	3.18	3.20	0.11*	0.19
I take a positive attitude toward myself.	3.13	3.25	0.12*	0.18
On the whole, I am satisfied with myself.	2.90	3.04	0.14*	0.20
Self-Esteem Total	12.45	12.78	0.42	
Means =	3.11	3.19		
Locus of Control (Scale: 1 = Agree to 4 = Disagree)				
Good luck is more important than hard work.	3.30	3.19	-0.11*	-0.16
Planning only makes a person unhappy.	3.04	3.06	0.02	0.02
Every time I try to get ahead, something stops me.	2.92	2.86	-0.06*	-0.08
People who accept their condition in life are happier than those who try to change things.	2.80	2.66	-0.14*	-0.15
Locus of Control Total	12.06	11.77	-0.29	
Means =	3.01	2.94		

*Significant at .05 or less

1980, however, scores on three of the four items had decreased, moving the students in the direction of external control but still above the scale midpoint.

Changes toward greater external control were greater for females than for males, for low and middle SES than high SES students, and for students in the general and vocational curricula than for students in the academic curriculum. (See Tables 6-33 to 6-36.)

In summary, students increased in self-esteem between 1972 and 1980. However, locus of control, while still on the internal end of the scale, moved in the direction of greater external control in 1980 than in 1972. In short, between 1972 and 1980 students became more self-confident but less sure of their ability to control the course of their own lives.

Table 6-29

I FEEL I AM A PERSON OF WORTH ON AN EQUAL PLANE WITH OTHERS
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15316	2800452	3.24	0.6	25845	2791949	3.29	0.6	0.59	0.05 *	0.08
SEX:											
MALE	7606	1398656	3.25	0.6	12011	1306819	3.32	0.6	0.59	0.06 *	0.10
FEMALE	7706	1401030	3.23	0.6	13185	1418416	3.27	0.6	0.59	0.04 *	0.06
SES:											
LOW	4367	671742	3.23	0.6	7530	726974	3.24	0.6	0.61	0.00	0.00
MIDDLE	7284	1430442	3.23	0.6	11904	1324691	3.28	0.6	0.59	0.05 *	0.09
HIGH	3621	691042	3.29	0.6	5868	686669	3.38	0.6	0.58	0.09 *	0.15
RACE:											
WHITE	11888	2341331	3.23	0.6	18546	2208345	3.28	0.6	0.58	0.05 *	0.08
BLACK	1928	232091	3.38	0.7	3338	303771	3.41	0.6	0.63	0.03	0.05
ASIAN-AMERICAN	169	24562	3.11	0.6	324	35469	3.29	0.6	0.62	0.18	0.29
AMERICAN INDIAN	163	26967	3.22	0.6	189	19482	3.19	0.7	0.65	-0.03	-0.05
MEXICAN-AMERICAN	493	65003	3.24	0.6	1698	91058	3.23	0.6	0.60	-0.01	-0.02
PUERTO RICAN	85	8917	3.29	0.7	260	15450	3.18	0.7	0.73	-0.11	-0.16
OTHER HISPANIC	106	16620	3.13	0.7	867	58083	3.27	0.6	0.57	0.14	0.24
SCHOOL TYPE:											
PUBLIC	13724	2481635	3.24	0.6	22493	2504108	3.29	0.6	0.59	0.05 *	0.08
PRIVATE	59	14119	3.24	0.6	826	98396	3.34	0.6	0.61	0.10	0.16
CATHOLIC	964	222883	3.26	0.6	2526	189445	3.31	0.6	0.60	0.05	0.09
GEOGRAPHIC REGION:											
NORTHEAST	3300	736230	3.20	0.6	5249	647538	3.28	0.6	0.59	0.08 *	0.14
NORTH CENTRAL	4203	848269	3.22	0.6	7433	798468	3.27	0.6	0.59	0.04 *	0.07
SOUTH	5103	737030	3.29	0.6	8459	838529	3.32	0.6	0.60	0.03	0.04
WEST	2710	478923	3.27	0.6	4704	507415	3.30	0.6	0.59	0.03	0.04
CURRICULUM:											
GENERAL	5112	871191	3.21	0.6	9325	1008373	3.24	0.6	0.59	0.03	0.04
ACADEMIC	6382	1306066	3.29	0.6	9992	1083464	3.39	0.6	0.59	0.09 *	0.16
VOCATIONAL	3821	622892	3.19	0.6	6176	661426	3.22	0.6	0.59	0.03	0.05
COMMUNITY TYPE:											
URBAN	4197	729743	3.27	0.6	5901	556133	3.32	0.6	0.61	0.05 *	0.09
SUBURBAN	7363	1423578	3.24	0.6	12494	1383009	3.30	0.6	0.59	0.05 *	0.09
RURAL	3390	589128	3.21	0.6	7450	852808	3.26	0.6	0.59	0.04 *	0.07

*SIGNIFICANT AT .05 OR LESS

Table 6-30

I AM ABLE TO DO THINGS AS WELL AS MOST OTHER PEOPLE
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15556	2848164	3.18	0.6	26175	2829460	3.29	0.6	0.58	0.11 *	0.19
SEX:											
MALE	7740	1422698	3.24	0.6	12180	1326004	3.35	0.6	0.57	0.12 *	0.20
FEMALE	7812	1424701	3.12	0.6	13326	1435012	3.24	0.6	0.58	0.11 *	0.20
SES:											
LOW	4406	678554	3.16	0.6	7656	739074	3.23	0.6	0.59	0.07 *	0.13
MIDDLE	7429	1461128	3.16	0.6	12069	1344589	3.27	0.6	0.57	0.12 *	0.21
HIGH	3670	699936	3.25	0.6	5884	690313	3.38	0.6	0.57	0.13 *	0.24
RACE:											
WHITE	12087	2381784	3.17	0.6	18800	2239281	3.28	0.6	0.57	0.11 *	0.20
BLACK	1929	233204	3.30	0.6	3336	304411	3.38	0.6	0.63	0.08 *	0.12
ASIAN-AMERICAN	168	23732	3.12	0.6	329	35914	3.34	0.6	0.58	0.22 *	0.39
AMERICAN INDIAN	169	28130	3.16	0.7	188	19154	3.20	0.6	0.62	0.04	0.07
MEXICAN-AMERICAN	515	67732	3.20	0.6	1733	93221	3.24	0.6	0.60	0.05	0.08
PUERTO RICAN	86	8848	3.28	0.7	275	15798	3.19	0.7	0.73	-0.09	-0.12
OTHER HISPANIC	111	17113	3.20	0.6	880	59325	3.30	0.6	0.61	0.09	0.15
SCHOOL TYPE:											
PUBLIC	13947	2528110	3.18	0.6	22814	2541780	3.29	0.6	0.58	0.11 *	0.19
PRIVATE	63	14993	3.12	0.6	823	98946	3.33	0.6	0.60	0.21	0.35
CATHOLIC	966	222262	3.19	0.6	2538	188735	3.29	0.6	0.59	0.10 *	0.16
GEOGRAPHIC REGION:											
NORTHEAST	3357	751776	3.14	0.6	5330	657742	3.28	0.6	0.58	0.14 *	0.24
NORTH CENTRAL	4270	859323	3.16	0.6	7526	810254	3.27	0.6	0.57	0.11 *	0.19
SOUTH	5137	742617	3.22	0.6	8537	847062	3.30	0.6	0.59	0.07 *	0.12
WEST	2792	494448	3.20	0.6	4782	514401	3.32	0.6	0.57	0.12 *	0.22
CURRICULUM:											
GENERAL	5214	892139	3.14	0.6	9452	1023734	3.24	0.6	0.57	0.10 *	0.17
ACADEMIC	6485	1324975	3.23	0.6	10044	1090398	3.38	0.6	0.58	0.14 *	0.25
VOCATIONAL	3856	630747	3.12	0.6	6312	674922	3.23	0.6	0.59	0.11 *	0.18
COMMUNITY TYPE:											
URBAN	4285	744759	3.21	0.6	5958	561741	3.33	0.6	0.60	0.12 *	0.20
SUBURBAN	7445	1443463	3.18	0.6	12666	1403528	3.29	0.6	0.58	0.12 *	0.20
RURAL	3444	598592	3.15	0.6	7551	864192	3.26	0.6	0.57	0.11 *	0.19

*SIGNIFICANT AT .05 OR LESS

Table 6-31

I TAKE A POSITIVE ATTITUDE TOWARD MYSELF
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	14808	2712597	3.13	0.7	25980	2799578	3.25	0.6	0.65	0.12 *	0.18
SEX:											
MALE	7317	1347297	3.19	0.7	12078	1311224	3.34	0.6	0.63	0.15 *	0.24
FEMALE	7487	1364534	3.06	0.7	13210	1417984	3.16	0.7	0.66	0.09 *	0.14
SES:											
LOW	4101	632748	3.13	0.7	7602	730481	3.22	0.6	0.67	0.09 *	0.14
MIDDLE	7082	1389360	3.11	0.7	11953	1328044	3.23	0.6	0.65	0.12 *	0.19
HIGH	3578	682515	3.15	0.7	5867	686428	3.29	0.6	0.65	0.14 *	0.21
RACE:											
WHITE	11551	2274517	3.10	0.7	18525	2204187	3.21	0.6	0.65	0.11 *	0.16
BLACK	1855	225008	3.37	0.7	3411	309097	3.51	0.6	0.64	0.14 *	0.22
ASIAN-AMERICAN	159	22647	3.01	0.6	340	36213	3.27	0.6	0.61	0.26 *	0.43
AMERICAN INDIAN	158	26653	3.08	0.7	196	19814	3.23	0.7	0.70	0.15	0.22
MEXICAN-AMERICAN	459	61502	3.21	0.6	1711	92636	3.23	0.6	0.63	0.02	0.03
PUERTO RICAN	79	8244	3.21	0.7	277	16008	3.28	0.6	0.66	0.08	0.12
OTHER HISPANIC	108	16885	3.17	0.7	881	58913	3.32	0.6	0.60	0.15	0.25
SCHOOL TYPE:											
PUBLIC	13247	2399313	3.13	0.7	22626	2514594	3.25	0.6	0.65	0.12 *	0.18
PRIVATE	61	15115	3.05	0.6	824	97462	3.26	0.6	0.64	0.21	0.33
CATHOLIC	948	218672	3.09	0.7	2530	187521	3.22	0.6	0.66	0.12 *	0.19
GEOGRAPHIC REGION:											
NORTHEAST	3212	716589	3.06	0.7	5252	644872	3.22	0.6	0.67	0.16 *	0.24
NORTH CENTRAL	4093	824457	3.09	0.7	7466	801589	3.21	0.6	0.65	0.11 *	0.17
SOUTH	4841	700556	3.20	0.7	8490	841279	3.30	0.6	0.65	0.10 *	0.16
WEST	2662	470995	3.17	0.7	4772	511837	3.25	0.6	0.64	0.08 *	0.13
CURRICULUM:											
GENERAL	4866	832166	3.10	0.7	9368	1009894	3.21	0.6	0.65	0.11 *	0.17
ACADEMIC	6324	1291562	3.16	0.7	10039	1086027	3.29	0.6	0.65	0.14 *	0.21
VOCATIONAL	3617	588567	3.09	0.7	6214	664301	3.21	0.6	0.65	0.13 *	0.19
COMMUNITY TYPE:											
URBAN	4105	712219	3.17	0.7	5976	560015	3.31	0.6	0.66	0.14 *	0.21
SUBURBAN	7136	1384280	3.11	0.7	12558	1389267	3.24	0.6	0.65	0.13 *	0.19
RURAL	3211	558300	3.10	0.7	7446	850296	3.22	0.6	0.64	0.12 *	0.18

*SIGNIFICANT AT .05 OR LESS

Table 6-32

ON THE WHOLE, I'M SATISFIED WITH MYSELF
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15223	2785681	2.90	0.7	26078	2810192	3.04	0.7	0.71	0.14 *	0.20
SEX:											
MALE	7549	1386188	2.87	0.8	12090	1313281	3.05	0.7	0.72	0.18 *	0.25
FEMALE	7670	1398728	2.93	0.7	13330	1429573	3.03	0.7	0.70	0.11 *	0.15
SES:											
LOW	4348	667800	2.90	0.8	7676	736826	3.00	0.7	0.74	0.10 *	0.13
MIDDLE	7219	1420398	2.90	0.7	12029	1337762	3.03	0.7	0.69	0.13 *	0.19
HIGH	3606	689400	2.90	0.7	5840	682299	3.10	0.7	0.70	0.20 *	0.29
RACE:											
WHITE	11828	2326669	2.90	0.7	18684	2221160	3.03	0.7	0.69	0.14 *	0.20
BLACK	1893	229745	2.90	0.9	3355	304796	3.10	0.8	0.84	0.20 *	0.24
ASIAN-AMERICAN	166	24174	2.87	0.7	334	36310	3.00	0.7	0.68	0.13	0.19
AMERICAN INDIAN	169	27733	2.89	0.8	192	19588	2.96	0.7	0.78	0.07	0.08
MEXICAN-AMERICAN	493	65004	2.94	0.8	1733	92157	3.03	0.7	0.72	0.09	0.13
PUERTO RICAN	86	8861	2.99	0.9	276	15865	3.07	0.8	0.82	0.08	0.10
OTHER HISPANIC	111	17503	3.01	0.8	879	58773	3.10	0.7	0.69	0.09	0.13
SCHOOL TYPE:											
PUBLIC	13638	2470362	2.90	0.7	22714	2524554	3.04	0.7	0.71	0.14 *	0.20
PRIVATE	59	14237	2.97	0.7	814	96670	3.08	0.7	0.71	0.11	0.15
CATHOLIC	955	219149	2.93	0.7	2550	188968	3.05	0.7	0.69	0.12 *	0.17
GEOGRAPHIC REGION:											
NORTHEAST	3313	739286	2.91	0.7	5295	651196	3.03	0.7	0.70	0.12 *	0.18
NORTH CENTRAL	4150	837622	2.85	0.7	7494	805513	3.02	0.7	0.69	0.17 *	0.24
SOUTH	5052	730416	2.93	0.8	8533	844575	3.06	0.7	0.74	0.13 *	0.18
WEST	2708	478357	2.93	0.8	4756	508909	3.05	0.7	0.71	0.12 *	0.17
CURRICULUM:											
GENERAL	5075	868250	2.88	0.8	9424	1018599	3.00	0.7	0.70	0.12 *	0.17
ACADEMIC	6342	1298832	2.90	0.7	9994	1079933	3.09	0.7	0.72	0.19 *	0.27
VOCATIONAL	3805	618296	2.93	0.7	6298	672296	3.02	0.7	0.71	0.09 *	0.13
COMMUNITY TYPE:											
URBAN	4191	727557	2.92	0.8	5947	557778	3.07	0.7	0.74	0.15 *	0.20
SUBURBAN	7288	1412000	2.90	0.7	12625	1395685	3.04	0.7	0.71	0.14 *	0.20
RURAL	3373	586311	2.88	0.7	7506	856730	3.03	0.7	0.69	0.15 *	0.21

*SIGNIFICANT AT .05 OR LESS

Table 6-33

GOOD LUCK IS MORE IMPORTANT THAN HARD WORK FOR SUCCESS
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15652	2862222	3.30	0.7	25749	2782175	3.19	0.7	0.71	-0.11 *	-0.16
SEX:											
MALE	7668	1406585	3.25	0.7	11857	1288472	3.14	0.7	0.73	-0.11 *	-0.16
FEMALE	7981	1455081	3.36	0.7	13226	1425314	3.25	0.7	0.68	-0.10 *	-0.15
SES:											
LOW	4487	692948	3.21	0.7	7531	727511	3.10	0.8	0.76	-0.11 *	-0.15
MIDDLE	7471	1466252	3.33	0.7	11890	1323412	3.21	0.7	0.68	-0.12 *	-0.18
HIGH	3645	694715	3.34	0.7	5799	679646	3.29	0.7	0.66	-0.06 *	-0.09
RACE:											
WHITE	12196	2397367	3.34	0.7	18510	2203419	3.24	0.7	0.67	-0.09 *	-0.14
BLACK	1920	232008	3.10	0.8	3237	295468	2.96	0.8	0.83	-0.14 *	-0.17
ASIAN-AMERICAN	172	24769	3.22	0.7	335	36173	3.14	0.7	0.72	-0.09	-0.12
AMERICAN INDIAN	173	28675	3.17	0.7	192	19373	2.98	0.8	0.79	-0.19	-0.24
MEXICAN-AMERICAN	513	67493	3.19	0.8	1704	91728	3.00	0.8	0.79	-0.19 *	-0.24
PUERTO RICAN	82	8575	3.10	0.7	273	15864	3.00	0.8	0.76	-0.10	-0.13
OTHER HISPANIC	114	17576	3.13	0.8	872	58728	3.02	0.8	0.78	-0.11	-0.15
SCHOOL TYPE:											
PUBLIC	14028	2539862	3.30	0.7	22434	2498067	3.18	0.7	0.71	-0.12 *	-0.16
PRIVATE	65	15986	3.47	0.7	805	96900	3.27	0.7	0.70	-0.20	-0.28
CATHOLIC	969	222104	3.37	0.7	2510	187208	3.26	0.7	0.67	-0.11 *	-0.17
GEOGRAPHIC REGION:											
NORTHEAST	3382	756718	3.32	0.7	5244	646114	3.20	0.7	0.70	-0.12 *	-0.17
NORTH CENTRAL	4316	866280	3.30	0.7	7376	795518	3.23	0.7	0.68	-0.07 *	-0.11
SOUTH	5178	748243	3.29	0.7	8406	834346	3.14	0.8	0.73	-0.15 *	-0.21
WEST	2776	490982	3.31	0.7	4723	506197	3.22	0.7	0.71	-0.08 *	-0.12
CURRICULUM:											
GENERAL	5259	900149	3.24	0.7	9278	1004497	3.14	0.7	0.71	-0.11 *	-0.15
ACADEMIC	6468	1322351	3.38	0.6	9922	1074079	3.31	0.7	0.66	-0.07 *	-0.11
VOCATIONAL	3924	639419	3.23	0.7	6195	664893	3.10	0.8	0.75	-0.13 *	-0.17
COMMUNITY TYPE:											
URBAN	4257	738134	3.30	0.7	5837	547853	3.15	0.8	0.73	-0.14 *	-0.20
SUBURBAN	7523	1456060	3.31	0.7	12479	1381111	3.22	0.7	0.69	-0.09 *	-0.13
RURAL	3488	606319	3.30	0.7	7433	853211	3.17	0.7	0.71	-0.13 *	-0.19

*SIGNIFICANT AT .05 OR LESS

Table 6-34

PLANNING ONLY MAKES A PERSON UNHAPPY SINCE PLANS HARDLY EVER WORK OUT ANYWAY
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15470	2831431	3.04	0.8	25699	2776320	3.06	0.8	0.79	0.02	0.02
SEX:											
MALE	7557	1387505	2.97	0.8	11783	1281286	3.01	0.8	0.79	0.04	0.05
FEMALE	7909	1443160	3.11	0.8	13275	1429278	3.11	0.8	0.79	0.00	0.01
SES:											
LOW	4396	677728	2.89	0.8	7550	728086	2.88	0.8	0.83	-0.01	-0.01
MIDDLE	7397	1455213	3.05	0.8	11857	1320766	3.08	0.8	0.78	0.02	0.03
HIGH	3635	691916	3.16	0.7	5786	678094	3.25	0.7	0.73	0.08 *	0.11
RACE:											
WHITE	12073	2375229	3.08	0.8	18504	2204262	3.10	0.8	0.77	0.02	0.03
BLACK	1681	227391	2.83	0.9	3223	292493	2.89	0.9	0.87	0.06	0.06
ASIAN-AMERICAN	181	26080	3.08	0.8	332	36097	3.14	0.8	0.79	0.06	0.08
AMERICAN INDIAN	175	28880	2.85	0.9	192	19447	2.95	0.8	0.86	0.11	0.12
MEXICAN-AMERICAN	501	65981	2.82	0.8	1714	91364	2.84	0.8	0.81	0.02	0.02
PUERTO RICAN	85	8652	2.68	0.8	273	15546	2.88	0.8	0.80	0.20	0.25
OTHER HISPANIC	100	15616	2.86	0.8	848	56625	2.87	0.9	0.85	0.01	0.01
SCHOOL TYPE:											
PUBLIC	13854	2509719	3.04	0.8	22403	2494623	3.05	0.8	0.79	0.01	0.01
PRIVATE	64	15627	3.09	0.8	806	96071	3.22	0.7	0.73	0.12	0.17
CATHOLIC	976	224097	3.08	0.8	2490	185626	3.13	0.7	0.75	0.04	0.06
GEOGRAPHIC REGION:											
NORTHEAST	3339	746860	3.00	0.8	5220	642042	3.03	0.8	0.80	0.03	0.04
NORTH CENTRAL	4258	855717	3.06	0.8	7393	797902	3.08	0.8	0.77	0.02	0.03
SOUTH	5101	738093	3.02	0.8	8359	829605	3.00	0.8	0.82	-0.02	-0.03
WEST	2772	490772	3.09	0.8	4727	506771	3.15	0.8	0.77	0.06	0.08
CURRICULUM:											
GENERAL	5187	889815	2.95	0.8	9266	1001187	2.97	0.8	0.80	0.02	0.03
ACADEMIC	6404	1309442	3.17	0.7	9879	1072654	3.23	0.7	0.74	0.06 *	0.08
VOCATIONAL	3878	631872	2.90	0.8	6194	662682	2.93	0.8	0.83	0.03	0.04
COMMUNITY TYPE:											
URBAN	4227	732320	3.05	0.8	5848	551031	3.02	0.8	0.82	-0.03	-0.03
SUBURBAN	7414	1437545	3.05	0.8	12430	1376717	3.09	0.8	0.78	0.04 *	0.05
RURAL	3455	600968	3.03	0.8	7421	848572	3.04	0.8	0.79	0.01	0.01

*SIGNIFICANT AT .05 OR LESS

Table 6-35

EVERY TIME I TRY TO GET AHEAD, SOMETHING OR SOMEBODY STOPS ME
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15017	2745586	2.92	0.7	25163	2716731	2.86	0.7	0.72	-0.06 *	-0.08
SEX:											
MALE	7362	1352359	2.84	0.7	11596	1260280	2.81	0.7	0.73	-0.03	-0.04
FEMALE	7651	1392462	2.99	0.7	12939	1392621	2.90	0.7	0.69	-0.08 *	-0.12
SES:											
LOW	4269	657310	2.75	0.7	7386	711515	2.69	0.8	0.75	-0.07 *	-0.09
MIDDLE	7162	1404285	2.92	0.7	11601	1292252	2.86	0.7	0.70	-0.06 *	-0.09
HIGH	3544	677157	3.06	0.6	5664	662532	3.06	0.7	0.66	-0.00	-0.00
RACE:											
WHITE	11683	2296381	2.95	0.7	18057	2152527	2.89	0.7	0.69	-0.06 *	-0.08
BLACK	1846	223168	2.74	0.8	3214	289883	2.70	0.8	0.82	-0.03	-0.04
ASIAN-AMERICAN	163	23549	2.91	0.8	326	35680	2.83	0.8	0.78	-0.08	-0.11
AMERICAN INDIAN	164	27286	2.70	0.8	187	18750	2.63	0.7	0.79	-0.07	-0.09
MEXICAN-AMERICAN	505	66762	2.74	0.7	1667	88913	2.77	0.7	0.73	0.03	0.04
PUERTO RICAN	79	8174	2.65	0.8	270	15145	2.71	0.7	0.77	0.07	0.09
OTHER HISPANIC	106	16411	2.95	0.7	848	57134	2.74	0.8	0.76	-0.21	-0.27
SCHOOL TYPE:											
PUBLIC	13451	2433444	2.91	0.7	21926	2440326	2.85	0.7	0.72	-0.07 *	-0.09
PRIVATE	62	15251	3.08	0.8	783	93284	3.01	0.7	0.72	-0.07	-0.10
CATHOLIC	941	216036	2.98	0.7	2454	183121	2.95	0.7	0.68	-0.03	-0.05
GEOGRAPHIC REGION:											
NORTHEAST	3252	725437	2.96	0.7	5135	631351	2.90	0.7	0.71	-0.06 *	-0.08
NORTH CENTRAL	4140	829031	2.89	0.7	7209	777248	2.85	0.7	0.70	-0.05	-0.07
SOUTH	4933	713591	2.87	0.7	8208	811098	2.80	0.7	0.74	-0.07 *	-0.10
WEST	2692	477528	2.95	0.7	4611	497035	2.92	0.7	0.70	-0.04	-0.05
CURRICULUM:											
GENERAL	4987	853575	2.81	0.7	9069	980741	2.78	0.7	0.72	-0.03	-0.04
ACADEMIC	6249	1277974	3.04	0.7	9699	1051863	3.02	0.7	0.67	-0.02	-0.03
VOCATIONAL	3781	614038	2.80	0.7	6055	647116	2.72	0.8	0.75	-0.08 *	-0.11
COMMUNITY TYPE:											
URBAN	4118	710736	2.93	0.7	5751	539017	2.86	0.8	0.74	-0.07 *	-0.09
SUBURBAN	7231	1402141	2.94	0.7	12194	1350614	2.89	0.7	0.70	-0.05 *	-0.07
RURAL	3308	574503	2.85	0.7	7218	827100	2.80	0.7	0.71	-0.04	-0.06

*SIGNIFICANT AT .05 OR LESS

Table 6-36

PEOPLE WHO ACCEPT THEIR CONDITION IN LIFE ARE HAPPIER THAN THOSE WHO TRY TO CHANGE THINGS
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	15041	2756993	2.80	0.9	24643	2662116	2.66	0.9	0.91	-0.14 *	-0.15
SEX:											
MALE	7359	1356289	2.79	0.9	11355	1234816	2.67	0.9	0.90	-0.13 *	-0.14
FEMALE	7678	1399938	2.80	0.9	12682	1365149	2.66	0.9	0.92	-0.14 *	-0.15
SES:											
LOW	4295	664901	2.61	0.9	7266	700840	2.47	0.9	0.91	-0.14 *	-0.16
MIDDLE	7177	1411715	2.80	0.9	11384	1265875	2.65	0.9	0.91	-0.14 *	-0.16
HIGH	3525	673433	2.97	0.9	5511	647048	2.89	0.9	0.87	-0.09 *	-0.10
RACE:											
WHITE	11751	2313688	2.83	0.9	17708	2108560	2.70	0.9	0.90	-0.13 *	-0.15
BLACK	1803	217684	2.63	1.0	3107	284013	2.51	1.0	0.97	-0.12 *	-0.12
ASIAN-AMERICAN	165	23796	2.69	0.9	312	33422	2.52	0.9	0.90	-0.17	-0.19
AMERICAN INDIAN	171	28561	2.41	0.9	180	18524	2.51	0.8	0.89	0.10	0.11
MEXICAN-AMERICAN	489	64818	2.57	0.9	1647	87866	2.48	0.9	0.87	-0.10	-0.11
PUERTO RICAN	84	8475	2.47	1.0	261	15020	2.59	0.9	0.96	0.13	0.13
OTHER HISPANIC	107	16153	2.70	1.0	839	56384	2.49	0.9	0.90	-0.21	-0.23
SCHOOL TYPE:											
PUBLIC	13464	2441235	2.79	0.9	21488	2390731	2.64	0.9	0.91	-0.15 *	-0.16
PRIVATE	63	15660	2.84	1.0	781	94690	2.82	0.9	0.92	-0.03	-0.03
CATHOLIC	953	219709	2.94	0.9	2374	176695	2.79	0.9	0.89	-0.15 *	-0.17
GEOGRAPHIC REGION:											
NORTHEAST	3250	726530	2.84	0.9	4996	619195	2.72	0.9	0.90	-0.13 *	-0.14
NORTH CENTRAL	4179	840298	2.82	0.9	7043	756979	2.66	0.9	0.89	-0.16 *	-0.18
SOUTH	4964	721911	2.71	1.0	8103	802705	2.57	0.9	0.94	-0.14 *	-0.15
WEST	2648	468254	2.82	0.9	4501	483237	2.73	0.9	0.89	-0.09 *	-0.10
CURRICULUM:											
GENERAL	5038	865103	2.68	0.9	8898	961363	2.56	0.9	0.90	-0.12 *	-0.13
ACADEMIC	6228	1277112	2.98	0.9	9456	1025593	2.87	0.9	0.88	-0.10 *	-0.12
VOCATIONAL	3774	614474	2.58	0.9	5955	638917	2.47	0.9	0.91	-0.11 *	-0.12
COMMUNITY TYPE:											
URBAN	4120	716608	2.82	0.9	5560	522852	2.64	0.9	0.92	-0.18 *	-0.19
SUBURBAN	7216	1400307	2.83	0.9	11906	1318687	2.71	0.9	0.90	-0.13 *	-0.14
RURAL	3342	581875	2.67	0.9	7177	820578	2.59	0.9	0.91	-0.08 *	-0.09

*SIGNIFICANT AT .05 OR LESS

I. TIME SPENT ON HOMEWORK

The students also indicated on the questionnaires the amount of time they spent each week doing homework. The scale was from 1 = 0 to 5 hours a week to 3 = more than 10 hours a week.

The amount of homework done showed a decrease, with small effect size, from 1972 to 1980. As can be seen in Table 6-37, the mean went from 1.41 in 1972 to 1.31 in 1980, representing a decline from about 4.55 hours of homework per week in 1972 to 4.05 hours of homework per week in 1980.

Females showed a greater decrease in amount of homework than males, although the effect size was small. There was no decrease in the amount of homework done by students from high SES backgrounds, but the effect size for low and middle SES students indicates a small but significant decrease. White, Other Hispanic, and Black students were the racial/ethnic groups with significant decreases in the amount of homework done; there was a very slight but not significant increase in the amount of homework done by Asian-American students. Students in public schools and those in the general and vocational curricula also had homework decreases of moderate effect size. Students from the South and those from rural communities showed moderate decreases in the amount of homework.

Examination of the interaction between sex and curriculum type showed that females in the general and vocational curricula had small decreases in the amount of homework done. The cross-tabulations by socioeconomic status and race showed moderate decreases for all low SES students and moderate decreases for White and Black middle SES students. There were also moderate decreases in the amount of homework done by low and middle SES students in public schools. The interactions between SES and region showed moderate decreases in homework for low SES students in all regions but the West, a moderate decrease for middle SES students from the South, and small decreases for middle SES students from all other regions. There were small but not significant increases in the amount of homework done by high SES students in the Northeast and the West. There was a moderate decrease in the homework done by low and middle SES students from suburban and rural communities and small decreases for low and middle SES students in urban communities. High SES students from rural communities showed a very slight nonsignificant increase in the amount of homework done. Similar results can be seen in the interaction of SES and curriculum. Low SES students in all curricula and middle SES students in the general and vocational curricula showed a homework decrease with a moderate effect size. There was a small, nonsignificant increase in the amount of homework done by high SES students in the academic curriculum.

In sum, although the amount of homework done by students showed a small decrease between 1972 and 1980, this decrease varied across groups. It was greatest among low SES students, students in the South, and females in the general or vocational curriculum. The effect that decreasing homework has on test scores will be explored in the relational analysis.

Table 6-37

TIME PER WEEK SPENT ON HOMEWORK
(1=0-5 HOURS; 3=MORE THAN 10 HOURS)

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	16602	3028771	1.41	0.6	28051	3020945	1.31	0.6	0.59	-0.10 *	-0.17
SEX:											
MALE	8230	1508450	1.30	0.5	12846	1393588	1.25	0.5	0.54	-0.05 *	-0.09
FEMALE	8368	1519556	1.51	0.6	14063	1510853	1.37	0.6	0.62	-0.15 *	-0.24
SES:											
LOW	4801	738100	1.38	0.6	8357	806239	1.23	0.5	0.54	-0.15 *	-0.29
MIDDLE	7895	1548609	1.38	0.6	12758	1418705	1.27	0.5	0.56	-0.11 *	-0.20
HIGH	3844	731726	1.48	0.6	6150	719551	1.48	0.7	0.68	-0.00	-0.00
RACE:											
WHITE	12804	2517985	1.40	0.6	19763	2353204	1.31	0.6	0.59	-0.09 *	-0.16
BLACK	2111	254667	1.45	0.6	3748	341773	1.31	0.6	0.59	-0.15 *	-0.25
ASIAN-AMERICAN	192	27629	1.71	0.8	363	39273	1.74	0.8	0.79	0.03	0.04
AMERICAN INDIAN	186	30947	1.34	0.6	214	21978	1.24	0.5	0.55	-0.10	-0.17
MEXICAN-AMERICAN	551	72506	1.32	0.5	1881	101390	1.24	0.5	0.52	-0.08	-0.16
PUERTO RICAN	95	9684	1.48	0.6	305	17986	1.30	0.6	0.59	-0.19	-0.32
OTHER HISPANIC	121	18672	1.46	0.6	968	66590	1.23	0.5	0.54	-0.23 *	-0.43
SCHOOL TYPE:											
PUBLIC	14884	2687839	1.39	0.6	24508	2718145	1.28	0.6	0.57	-0.11 *	-0.20
PRIVATE	66	16256	1.63	0.7	866	103557	1.66	0.8	0.78	0.03	0.04
CATHOLIC	1026	235579	1.54	0.6	2677	199243	1.47	0.7	0.66	-0.07	-0.10
GEOGRAPHIC REGION:											
NORTHEAST	3597	799732	1.44	0.6	5653	692380	1.38	0.6	0.63	-0.06 *	-0.10
NORTH CENTRAL	4553	914850	1.40	0.6	8053	864586	1.31	0.6	0.58	-0.09 *	-0.15
SOUTH	5485	792387	1.42	0.6	9244	917812	1.26	0.5	0.56	-0.16 *	-0.29
WEST	2967	521803	1.35	0.6	5101	546166	1.30	0.6	0.58	-0.05 *	-0.08
CURRICULUM:											
GENERAL	5636	961920	1.27	0.5	10233	1106102	1.17	0.4	0.46	-0.10 *	-0.22
ACADEMIC	6790	1386730	1.55	0.7	10495	1134561	1.53	0.7	0.69	-0.02	-0.03
VOCATIONAL	4175	679819	1.31	0.5	6902	735086	1.18	0.4	0.47	-0.13 *	-0.27
COMMUNITY TYPE:											
URBAN	4547	784745	1.42	0.6	6461	604459	1.33	0.6	0.60	-0.09 *	-0.14
SUBURBAN	7924	1533221	1.41	0.6	13494	1492707	1.32	0.6	0.60	-0.09 *	-0.15
RURAL	3673	637907	1.39	0.6	8096	923780	1.27	0.5	0.55	-0.12 *	-0.23

*SIGNIFICANT AT .05 OR LESS

J. EXTRACURRICULAR ACTIVITIES

One factor that might affect the amount of time high school students spend on homework is the amount of time they spend on other activities, both in-school extracurricular activities and other out-of-school activities. The student questionnaire provides a clue to how students use their time by asking whether or not the student participated in each of nine extracurricular activities. Table 6-38 shows the results in summary form. There were minor changes between 1972 and 1980 in the questions about extracurricular activities. For example, all athletic teams were combined in 1972 but, in 1980, varsity teams were separated from other athletic teams. These changes may have created minor differences in the responses.

Table 6-38

Percentage of Students Participating in Extracurricular Activities

	1972	1980	Difference
Athletics	44.9%	51.8%	6.9*
Debating and/or Music	33.1	36.4	3.3*
Subject Matter Clubs	25.6	23.9	-1.8*
Vocational Education Clubs	22.3	23.2	0.9
Newspaper and/or Yearbook	20.2	19.7	-0.5
Student Government	19.4	18.3	-1.1*
Hobby Clubs	18.7	22.9	4.1*
Cheerleading	17.3	15.0	-2.3*
Honorary Clubs	14.4	16.8	2.4*

*Significant at .05 or less

As can be seen, athletics was the most popular extracurricular activity involving 44.9 percent of the students in 1972 and 51.8 percent in 1980. Thus, the percentage of students participating in athletics increased 6.9 percent in this period. The change in athletics participation rates was higher for females than for males, but the proportion of males taking part in athletics continues to exceed that of females. (See Table 6-39.) Participation in athletics increased more for high than for low SES students, thus adding to the already existing differential participation rates in these groups. Asian-American, American Indian, and Mexican-American students showed larger increases than did Whites, Blacks, or Puerto Ricans. Non-Catholic private school students showed a greater increase than public school students while there was a small decrease in athletic participation rates for Catholic school students. The increase was lower for academic curriculum students than for those in other curricula.

Table 6-39

PERCENTAGE PARTICIPATING IN ATHLETICS

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16453	3006842	44.9	27779	2993578	51.8	6.9 *
SEX:							
MALE	8186	1501415	58.2	12774	1387309	64.0	5.8 *
FEMALE	8262	1504410	31.7	13949	1498306	40.6	9.0 *
SES:							
LOW	4731	728892	38.7	8281	798574	43.2	4.5 *
MIDDLE	7831	1538384	44.5	12654	1407505	52.1	7.6 *
HIGH	3830	729121	51.7	6124	716791	61.7	9.9 *
RACE:							
WHITE	12718	2502673	45.1	19646	2340439	51.6	6.5 *
BLACK	2058	249083	49.6	3669	334311	54.5	4.8 *
ASIAN-AMERICAN	190	27464	36.0	358	38584	48.8	12.8 *
AMERICAN INDIAN	186	31153	43.6	217	22254	62.2	18.6 *
MEXICAN-AMERICAN	545	71623	38.6	1864	99840	49.6	11.0 *
PUERTO RICAN	95	9659	41.1	300	17525	47.9	6.8
OTHER HISPANIC	120	18471	36.7	955	65391	49.5	12.8 *
SCHOOL TYPE:							
PUBLIC	14750	2669209	43.6	24241	2690539	50.6	7.1 *
PRIVATE	65	15919	57.2	864	103673	73.1	16.0 *
CATHOLIC	1019	233649	58.1	2674	199366	57.1	-1.1
GEOGRAPHIC REGION:							
NORTHEAST	3582	797729	47.2	5608	687463	54.5	7.3 *
NORTH CENTRAL	4518	907712	46.7	7976	858396	52.8	6.1 *
SOUTH	5402	781336	42.2	9130	906210	48.2	6.0 *
WEST	2951	520064	42.3	5065	541511	52.9	10.6 *
CURRICULUM:							
GENERAL	5591	955628	41.0	10142	1096489	49.9	8.9 *
ACADEMIC	6744	1379024	53.4	10449	1130050	60.1	6.7 *
VOCATIONAL	4117	671887	32.9	6782	723242	42.4	9.5 *
COMMUNITY TYPE:							
URBAN	4496	776847	43.0	6367	596028	48.2	5.2 *
SUBURBAN	7886	1527429	44.6	13383	1481555	52.6	8.0 *
RURAL	3627	631401	48.6	8029	915995	52.9	4.3 *

*SIGNIFICANT AT .05 OR LESS

Debating and musical activities, such as band, chorus or orchestra, were combined in the second most frequent form of extracurricular participation. There was a slight increase in participation between 1972 and 1980. This increase was greater for females than males, greater for high than for low SES students, and greater for Asian-American, American Indian, and Puerto Rican students than for other students. (See Table 6-40.) The change in participation rate varied little across curricula.

Subject matter clubs, the third most frequent type of extracurricular activities, showed a small but significant decrease in participation rates between 1972 and 1980. This suggests that the 1980 students had less opportunity to acquire additional knowledge through non-formal learning in a subject matter club than did the 1972 students. As shown in Table 6-41, the decrease was greater for females than for males. Although students from the White, Black, and Other Hispanic racial/ethnic groups showed decreased participation in subject matter clubs, participation increased for other minority groups. Participation in subject matter clubs declined more in Catholic schools than in public schools while non-Catholic private schools showed an increase.

Participation rates in vocational education clubs and in school newspapers and/or yearbooks were relatively stable between 1972 and 1980. There was a rise in participation in vocational clubs for males and a decline for females. (See Table 6-42.) There was a decrease in participation in vocational clubs for students in the academic and general curricula and an increase for students in the vocational curriculum. This suggests that vocational curriculum students are using these clubs as a way to increase their knowledge of a vocational field, while students in other curricula see the content of these vocational clubs as less relevant. In newspaper and yearbook activities, males showed a slight increase while female participation declined. Participation in this activity also decreased for low and middle SES students and for students in the nonacademic curricula; participation in these writing-related extracurricular activities increased among high SES students and among students in the academic curriculum. These findings, presented in Table 6-43, suggest that college-bound students may be using writing-related extracurricular activities to enhance their writing skills.

Participation in student government decreased slightly but significantly. This was due primarily to a decrease in the participation of male students, a decrease in the participation of students not enrolled in the academic curriculum, and a decrease in the participation of students from suburban schools. (See Table 6-44.)

Participation in hobby clubs, however, showed an increase. The increase was greater for females than for males. There is very little variation in the participation rates in these clubs across SES groups or across school curricula. (See Table 6-45.)

Table 6-40

PERCENTAGE PARTICIPATING IN DEBATING AND/OR MUSIC

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16202	2962931	33.1	27596	2972184	36.4	3.3 *
SEX:							
MALE	7987	1466013	26.8	12645	1373401	28.4	1.7
FEMALE	8210	1495901	39.2	13924	1495066	43.9	4.8 *
SES:							
LOW	4639	715224	30.1	8221	792425	31.1	1.0
MIDDLE	7703	1513815	32.1	12598	1400831	35.8	3.8 *
HIGH	3802	723962	38.0	6081	711065	43.9	5.8 *
RACE:							
WHITE	12566	2472337	32.8	19556	2327724	35.8	3.0 *
BLACK	1999	241621	40.8	3621	330035	43.3	2.4
ASIAN-AMERICAN	189	27303	21.9	357	38447	36.6	14.7 *
AMERICAN INDIAN	183	30862	23.0	213	21892	37.0	13.9 *
MEXICAN-AMERICAN	528	69002	27.1	1852	98643	29.9	2.9
PUERTO RICAN	92	9232	30.2	297	17269	38.6	8.4
OTHER HISPANIC	118	18011	26.9	939	64410	30.8	3.9
SCHOOL TYPE:							
PUBLIC	14530	2630747	33.2	24080	2671586	35.9	2.8 *
PRIVATE	66	16256	59.7	858	102641	53.0	-6.7
CATHOLIC	1009	231100	32.2	2658	197957	34.0	1.8
GEOGRAPHIC REGION:							
NORTHEAST	3525	785111	31.7	5558	680717	34.5	2.8
NORTH CENTRAL	4449	894966	35.5	7939	853358	37.1	1.6
SOUTH	5319	769762	32.9	9062	899768	37.9	5.0 *
WEST	2909	513091	30.9	5037	537842	35.2	4.3 *
CURRICULUM:							
GENERAL	5506	942071	30.8	10061	1087093	34.5	3.7 *
ACADEMIC	6646	1359890	39.4	10398	1123523	44.1	4.7 *
VOCATIONAL	4049	660667	23.1	6738	718585	27.7	4.6 *
COMMUNITY TYPE:							
URBAN	4429	767396	30.8	6328	591725	35.6	4.8 *
SUBURBAN	7758	1502946	32.4	13290	1470212	34.1	1.7
RURAL	3581	623516	38.0	7978	910247	40.6	2.6

*SIGNIFICANT AT .05 OR LESS

Table 6-41

PERCENTAGE PARTICIPATING IN SUBJECT MATTER CLUBS

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16246	2970934	25.6	27421	2953602	23.9	-1.8 *
SEX:							
MALE	8037	1475854	20.3	12570	1365377	19.0	-1.3
FEMALE	8205	1494314	30.9	13844	1486403	28.3	-2.6 *
SES:							
LOW	4641	715930	24.4	8165	786461	22.6	-1.8
MIDDLE	7742	1520270	25.2	12517	1392631	23.8	-1.4
HIGH	3805	724844	27.7	6054	707907	25.7	-2.0
RACE:							
WHITE	12605	2479184	25.0	19466	2317478	22.9	-2.1 *
BLACK	1997	242039	33.1	3563	323655	28.8	-4.4 *
ASIAN-AMERICAN	191	27418	26.6	355	38254	29.6	3.0
AMERICAN INDIAN	181	30424	27.9	213	21967	28.2	0.3
MEXICAN-AMERICAN	533	69748	23.8	1840	98521	25.2	1.4
PUERTO RICAN	93	9401	16.2	296	16880	18.1	1.9
OTHER HISPANIC	115	17689	30.1	931	63545	25.7	-4.3
SCHOOL TYPE:							
PUBLIC	14568	2637940	24.7	23928	2655250	23.8	-1.0
PRIVATE	66	16256	20.5	845	101056	24.6	4.1
CATHOLIC	1010	231203	35.6	2648	197296	25.2	-10.5 *
GEOGRAPHIC REGION:							
NORTHEAST	3533	787928	21.8	5525	676181	19.6	-2.3
NORTH CENTRAL	4466	897079	26.8	7901	850823	21.3	-5.5 *
SOUTH	5330	772652	31.0	8993	892017	30.8	-0.3
WEST	2917	513275	21.3	5002	534581	21.9	0.6
CURRICULUM:							
GENERAL	5521	944723	21.2	10008	1081657	19.6	-1.6
ACADEMIC	6670	1364719	29.6	10330	1115939	28.7	-0.9
VOCATIONAL	4054	661189	23.8	6686	713020	23.1	-0.7
COMMUNITY TYPE:							
URBAN	4436	767969	25.9	6285	586962	24.4	-1.6
SUBURBAN	7783	1508449	24.8	13201	1460755	22.1	-2.7 *
RURAL	3598	625789	27.5	7935	905885	26.5	-1.0

*SIGNIFICANT AT .05 OR LESS

Table 6-42

PERCENTAGE PARTICIPATING IN VOCATIONAL EDUCATION CLUBS

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16314	2980737	22.3	27481	2960166	23.2	0.9
SEX:							
MALE	8064	1478928	15.5	12589	1367074	19.1	3.7 *
FEMALE	8246	1501044	29.0	13883	1490660	26.7	-2.3 *
SES:							
LOW	4684	721685	30.9	8181	788057	30.6	-0.4
MIDDLE	7759	1522925	22.6	12559	1396712	24.1	1.5
HIGH	3813	726381	13.1	6054	708619	13.4	0.3
RACE:							
WHITE	12650	2486837	21.3	19502	2322012	22.3	1.0
BLACK	2014	243040	32.7	3581	325843	30.1	-2.6
ASIAN-AMERICAN	192	27607	12.1	353	38220	9.6	-2.5
AMERICAN INDIAN	182	30717	27.7	213	21892	22.2	-5.5
MEXICAN-AMERICAN	536	70288	31.1	1846	98117	30.2	-1.0
PUERTO RICAN	92	9325	7.6	293	16820	9.0	1.4
OTHER HISPANIC	115	17646	17.1	940	64419	27.6	10.5
SCHOOL TYPE:							
PUBLIC	14635	2647460	23.1	23982	2660863	24.9	1.8 *
PRIVATE	66	16256	9.7	848	101480	9.0	-0.7
CATHOLIC	1009	231139	11.7	2651	197822	6.6	-5.1 *
GEOGRAPHIC REGION:							
NORTHEAST	3546	791116	13.1	5525	676551	10.6	-2.5 *
NORTH CENTRAL	4469	896302	22.0	7915	851947	20.0	-2.0
SOUTH	5372	777535	36.3	9036	897090	40.0	3.7 *
WEST	2927	515785	15.7	5005	534578	15.8	0.1
CURRICULUM:							
GENERAL	5546	948634	23.3	10026	1084132	22.6	-0.6
ACADEMIC	6679	1365810	14.7	10344	1116869	13.1	-1.6 *
VOCATIONAL	4088	665992	36.3	6718	716626	39.3	3.0 *
COMMUNITY TYPE:							
URBAN	4447	769146	16.6	6286	586892	17.9	1.3
SUBURBAN	7810	1513109	18.5	13237	1464753	19.5	0.9
RURAL	3619	628569	38.3	7958	908521	32.5	-5.8 *

*SIGNIFICANT AT .05 OR LESS

Table 6-43

PERCENTAGE PARTICIPATING IN NEWSPAPER AND/OR YEARBOOK

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16233	2967880	20.2	27327	2943729	19.7	-0.5
SEX:							
MALE	8023	1472907	14.7	12528	1361630	15.4	0.7
FEMALE	8206	1494208	25.5	13792	1480026	24.0	-1.5
SES:							
LOW	4638	716223	17.6	8127	782543	15.7	-1.9 *
MIDDLE	7742	1519896	20.2	12498	1390922	19.3	-1.0
HIGH	3796	722152	22.8	6028	704672	25.3	2.5 *
RACE:							
WHITE	12600	2477707	20.5	19414	2311043	20.1	-0.3
BLACK	1996	241317	20.7	3546	322032	17.7	-3.0 *
ASIAN-AMERICAN	191	27517	16.2	353	37982	21.4	5.2
AMERICAN INDIAN	182	30659	19.1	211	21613	25.6	6.5
MEXICAN-AMERICAN	527	69368	14.9	1831	97581	14.7	-0.2
PUERTO RICAN	91	9200	16.0	293	17105	20.4	4.4
OTHER HISPANIC	117	17871	21.1	929	63671	16.2	-4.9
SCHOOL TYPE:							
PUBLIC	14554	2634258	19.4	23825	2644387	18.1	-1.3 *
PRIVATE	66	16256	41.7	854	102276	45.0	3.3
CATHOLIC	1007	231166	27.8	2648	197066	28.0	0.2
GEOGRAPHIC REGION:							
NORTHEAST	3527	786314	22.0	5503	673674	24.6	2.6 *
NORTH CENTRAL	4450	894270	21.0	7879	848049	18.4	-2.6 *
SOUTH	5332	772241	20.1	8962	889001	18.8	-1.3
WEST	2924	515056	16.0	4983	533005	16.9	0.9
CURRICULUM:							
GENERAL	5512	942680	17.1	9972	1078551	16.7	-0.4
ACADEMIC	6665	1363662	24.3	10299	1112468	26.9	2.6 *
VOCATIONAL	4055	661236	16.0	6662	710661	13.2	-2.8 *
COMMUNITY TYPE:							
URBAN	4427	766558	17.8	6264	585839	18.0	0.2
SUBURBAN	7787	1508164	19.4	13163	1455563	17.5	-2.0 *
RURAL	3585	623822	25.2	7900	902327	24.3	-0.9

*SIGNIFICANT AT .05 OR LESS

Table 6-44

PERCENTAGE PARTICIPATING IN STUDENT GOVERNMENT

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16163	2958781	19.4	27289	2941468	18.3	-1.1 *
SEX:							
MALE	8012	1473300	18.1	12497	1357916	15.8	-2.3 *
FEMALE	8147	1484715	20.8	13791	1482345	21.0	0.2
SES:							
LOW	4610	711990	14.0	8112	781997	13.3	-0.7
MIDDLE	7695	1512739	18.5	12468	1387975	18.0	-0.6
HIGH	3801	724236	26.6	6032	705906	25.2	-1.4
RACE:							
WHITE	12573	2474041	19.2	19393	2309480	17.7	-1.5 *
BLACK	1956	236548	25.3	3544	321763	23.1	-2.2
ASIAN-AMERICAN	191	27522	24.9	350	38072	23.6	-1.2
AMERICAN INDIAN	182	30701	16.3	208	21387	20.7	4.3
MEXICAN-AMERICAN	527	68800	15.2	1820	97177	16.6	1.5
PUERTO RICAN	91	9256	18.3	293	16678	19.3	1.0
OTHER HISPANIC	115	17647	17.7	930	63875	16.2	-1.6
SCHOOL TYPE:							
PUBLIC	14482	2625107	19.1	23802	2643016	17.8	-1.3 *
PRIVATE	65	16049	25.9	844	101052	29.7	3.8
CATHOLIC	1013	232220	20.8	2643	197400	19.9	-1.0
GEOGRAPHIC REGION:							
NORTHEAST	3530	786974	18.6	5505	674525	18.4	-0.2
NORTH CENTRAL	4451	894588	18.9	7879	847733	16.2	-2.7 *
SOUTH	5275	765259	20.6	8926	886799	19.2	-1.4
WEST	2907	511959	19.9	4979	532411	20.3	0.4
CURRICULUM:							
GENERAL	5493	941318	15.1	9950	1075878	14.4	-0.7
ACADEMIC	6658	1362957	26.0	10313	1114637	26.7	0.7
VOCATIONAL	4011	654203	11.9	6637	708807	11.5	-0.4
COMMUNITY TYPE:							
URBAN	4408	763416	19.1	6240	583877	19.6	0.4
SUBURBAN	7753	1504429	20.0	13166	1457312	17.1	-2.9 *
RURAL	3572	622085	19.0	7883	900279	19.6	0.6

*SIGNIFICANT AT .05 OR LESS

Table 6-45

PERCENTAGE PARTICIPATING IN HOBBY CLUBS

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16289	2977075	18.7	27447	2956163	22.9	4.1 *
SEX:							
MALE	8064	1479779	24.3	12592	1367247	26.6	2.3 *
FEMALE	8221	1496531	13.2	13842	1486419	19.3	6.0 *
SES:							
LOW	4664	719199	16.5	8170	787482	20.6	4.1 *
MIDDLE	7760	1522608	18.9	12544	1394607	23.4	4.5 *
HIGH	3808	725659	20.6	6051	707920	24.2	3.6 *
RACE:							
WHITE	12622	2482342	18.4	19472	2317722	22.5	4.1 *
BLACK	2013	243535	20.0	3580	325915	23.0	3.0
ASIAN-AMERICAN	189	27302	16.8	354	38247	26.6	9.8
AMERICAN INDIAN	184	30886	29.5	213	21887	31.5	2.1
MEXICAN-AMERICAN	538	70541	18.6	1843	98402	24.6	6.0 *
PUERTO RICAN	93	9401	21.5	295	16864	21.5	0.1
OTHER HISPANIC	117	17905	14.2	936	64315	23.0	8.8
SCHOOL TYPE:							
PUBLIC	14609	2644069	18.8	23954	2657941	22.8	4.0 *
PRIVATE	65	16060	19.0	846	100943	26.9	8.0
CATHOLIC	1009	230889	18.2	2647	197279	22.1	3.9
GEOGRAPHIC REGION:							
NORTHEAST	3544	789571	18.5	5529	676606	24.0	5.5 *
NORTH CENTRAL	4471	898904	18.0	7906	851160	21.0	3.0 *
SOUTH	5347	773280	17.9	9006	893628	22.0	4.1 *
WEST	2927	515320	21.6	5006	534769	25.8	4.2 *
CURRICULUM:							
GENERAL	5531	946972	18.2	10014	1082745	22.5	4.3 *
ACADEMIC	6677	1364638	18.9	10334	1116037	22.9	4.0 *
VOCATIONAL	4080	665162	19.2	6703	714422	22.9	3.7 *
COMMUNITY TYPE:							
URBAN	4452	770780	18.0	6287	587276	23.3	5.3 *
SUBURBAN	7803	1511316	18.4	13223	1462677	22.7	4.3 *
RURAL	3600	625654	20.5	7937	906210	22.8	2.3 *

*SIGNIFICANT AT .05 OR LESS

Participation in cheerleading declined between 1972 and 1980. As shown in Table 6-46, decline was greater for females than for males, for students in Catholic schools than for those in public or other non-Catholic private schools, and for students in the vocational curriculum.

Participation in honorary societies increased between 1972 and 1980. It is likely that this increase is linked to the increase in grades, since most honorary societies specify a grade point average for entrance. The increase was greater for males than females, and was larger for middle and high SES students, for students in nonpublic schools, and for academic curriculum students. (See Table 6-47.)

These data, taken together, suggest that student participation in extracurricular activities tended to increase between 1972 and 1980 in the recreational types of activities, such as athletics, hobby clubs and music groups, and showed a decline in extracurricular activities that provide an opportunity for non-formal learning, such as subject matter clubs, the newspaper, or yearbook.

K. COURSES TAKEN

The amount of instruction which students receive in a subject is usually closely related to their achievement in that subject. The number of courses taken in relevant subjects provide one indicator of the opportunity which a student has to learn the information and skills covered in the NLS and HS&B tests.

Information on the number of semesters of instruction in mathematics, English, science, social studies, and foreign languages were obtained from the 1972 and the 1980 seniors. The results, by classification groups, are shown in Tables 6-48 through 6-52.

There was a small but significant increase, between 1972 and 1980, in the number of semesters of mathematics which students reported taking. The mean rose from 3.93 semesters in 1972 to 4.06 semesters in 1980. The increase in the amount of mathematics taken was due primarily to females and to minorities. However, females continued to average fewer semesters of mathematics than males. Blacks, however, increased the amount of mathematics taken to an extent that, by 1980, they surpassed Whites. Asian-Americans and Puerto Ricans took more mathematics than Whites both in 1972 and in 1980. Mathematics course taking increased significantly in all curricula. Academic students continued to report taking more mathematics than general or vocational curriculum students, but vocational students showed the greatest increase.

Cross-tabulations show a significant increase in the number of mathematics courses taken by females in all curricula and by males in the academic and vocational curricula.

Table 6-46

PERCENTAGE PARTICIPATING IN CHEERLEADING

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16247	2971262	17.3	27397	2951820	15.0	-2.3 *
SEX:							
MALE	7985	1468523	5.3	12522	1360890	4.5	-0.8
FEMALE	8258	1501974	29.1	13869	1489181	24.8	-4.3 *
SES:							
LOW	4651	717578	14.8	8168	786419	13.0	-1.7 *
MIDDLE	7738	1519618	18.4	12519	1392897	15.9	-2.5 *
HIGH	3800	724058	17.7	6034	706699	15.6	-2.1
RACE:							
WHITE	12609	2480327	17.3	19447	2315618	14.9	-2.4 *
BLACK	1991	240287	21.2	3576	325305	17.6	-3.6 *
ASIAN-AMERICAN	190	27413	13.1	355	38397	14.6	1.4
AMERICAN INDIAN	182	30689	14.8	212	21868	17.0	2.2
MEXICAN-AMERICAN	537	70520	16.1	1831	97395	13.2	-2.9
PUERTO RICAN	92	9346	7.6	295	16859	12.1	4.5
OTHER HISPANIC	116	17731	13.5	929	63472	11.0	-2.5
SCHOOL TYPE:							
PUBLIC	14565	2637516	17.1	23906	2653800	14.9	-2.2 *
PRIVATE	65	16042	20.3	845	101225	17.3	-3.0
CATHOLIC	1011	231557	19.8	2646	196794	14.7	-5.1 *
GEOGRAPHIC REGION:							
NORTHEAST	3517	784345	14.0	5504	673936	11.5	-2.6 *
NORTH CENTRAL	4467	897791	20.0	7902	851132	15.3	-4.7 *
SOUTH	5333	773183	18.7	9002	894008	18.0	-0.7
WEST	2930	515944	15.6	4989	532744	14.0	-1.6
CURRICULUM:							
GENERAL	5515	943933	15.9	9990	1080015	14.0	-1.9 *
ACADEMIC	6670	1364595	19.0	10333	1116458	17.1	-1.8 *
VOCATIONAL	4061	662431	15.9	6682	712897	13.3	-2.6 *
COMMUNITY TYPE:							
URBAN	4437	768540	16.1	6274	586385	14.3	-1.9
SUBURBAN	7788	1508765	16.7	13187	1459166	13.1	-3.6 *
RURAL	3592	625237	20.9	7936	906268	18.6	-2.3 *

*SIGNIFICANT AT .05 OR LESS

Table 6-47

PERCENTAGE PARTICIPATING IN HONORARY CLUBS

	NLS 1972			HSB 1980			
	SAMPLE N	WEIGHTED N	PERCENT	SAMPLE N	WEIGHTED N	PERCENT	1980-1972 DIFFERENCE
TOTAL	16235	2970780	14.4	27339	2946629	16.8	2.4 *
SEX:							
MALE	8030	1475398	10.7	12530	1361947	13.9	3.2 *
FEMALE	8201	1494617	18.1	13810	1483601	20.1	1.9 *
SES:							
LOW	4639	716781	10.3	8124	782597	11.1	0.8
MIDDLE	7733	1519824	13.2	12514	1393046	16.3	3.1 *
HIGH	3806	724572	21.2	6024	705028	25.1	3.9 *
RACE:							
WHITE	12606	2480023	15.1	19434	2314473	17.7	2.7 *
BLACK	1981	240071	11.7	3546	322714	13.7	2.0
ASIAN-AMERICAN	189	27344	23.6	353	38336	23.4	-0.2
AMERICAN INDIAN	183	30798	6.6	210	21629	13.5	6.9
MEXICAN-AMERICAN	534	70168	9.5	1828	97028	12.0	2.4
PUERTO RICAN	93	9401	11.8	292	16902	14.5	2.8
OTHER HISPANIC	117	17905	12.0	931	63665	11.0	-1.0
SCHOOL TYPE:							
PUBLIC	14559	2637995	14.5	23861	2649219	16.5	2.1 *
PRIVATE	66	16256	13.3	843	100705	17.2	3.9
CATHOLIC	1009	231005	14.6	2635	196705	20.4	5.9 *
GEOGRAPHIC REGION:							
NORTHEAST	3535	788542	12.7	5507	674570	16.0	3.3 *
NORTH CENTRAL	4449	894709	12.1	7889	850062	15.2	3.1 *
SOUTH	5327	771839	18.0	8961	889602	19.6	1.6
WEST	2924	515690	15.7	4982	532395	15.7	-0.0
CURRICULUM:							
GENERAL	5518	945351	8.1	9979	1079274	9.6	1.5 *
ACADEMIC	6666	1363662	22.3	10315	1114777	29.1	6.8 *
VOCATIONAL	4050	661464	7.3	6658	710560	8.9	1.6 *
COMMUNITY TYPE:							
URBAN	4434	767569	12.6	6261	585327	15.6	3.0 *
SUBURBAN	7791	1510073	14.6	13167	1457804	16.5	1.9 *
RURAL	3584	624597	16.9	7911	903498	18.1	1.3

*SIGNIFICANT AT .05 OR LESS

Table 6-48

SEMESTERS (HALF-YEARS) OF MATHEMATICS

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	11771	2173309	3.93	1.8	27928	3010150	4.06	1.9	1.89	0.14 *	0.07
SEX:											
MALE	5897	1087004	4.22	1.8	12754	1385675	4.31	1.9	1.89	0.09	0.05
FEMALE	5871	1085602	3.63	1.8	13980	1501739	3.87	1.9	1.86	0.24 *	0.13
SES:											
LOW	3276	509101	3.45	1.9	8289	799547	3.60	1.9	1.91	0.16 *	0.08
MIDDLE	5628	1114947	3.88	1.8	12693	1412714	3.99	1.9	1.89	0.11 *	0.06
HIGH	2830	543308	4.47	1.7	6155	720884	4.73	1.7	1.70	0.27 *	0.16
RACE:											
WHITE	9228	1826746	3.97	1.8	19695	2347008	4.04	1.9	1.90	0.07	0.04
BLACK	1402	170819	3.86	1.6	3709	337785	4.28	1.8	1.77	0.42 *	0.24
ASIAN-AMERICAN	144	21438	4.28	1.8	364	39208	4.91	1.8	1.78	0.63 *	0.35
AMERICAN INDIAN	117	19854	2.67	1.7	215	22132	3.52	1.9	1.86	0.85 *	0.46
MEXICAN-AMERICAN	341	45673	3.30	1.7	1873	101049	3.73	1.8	1.79	0.43 *	0.24
PUERTO RICAN	62	6308	4.09	2.0	303	17963	4.26	2.1	2.11	0.18	0.08
OTHER HISPANIC	77	11792	4.12	1.7	959	65832	4.07	1.9	1.91	-0.05	-0.03
SCHOOL TYPE:											
PUBLIC	10595	1936725	3.86	1.9	24393	2707514	3.98	1.9	1.90	0.12 *	0.06
PRIVATE	37	10207	5.26	1.8	862	103179	4.69	1.7	1.73	-0.57	-0.33
CATHOLIC	750	171402	4.50	1.5	2673	199457	4.90	1.7	1.70	0.40 *	0.23
GEOGRAPHIC REGION:											
NORTHEAST	2765	634287	4.48	1.7	5622	689521	4.67	1.8	1.79	0.18 *	0.10
NORTH CENTRAL	3173	634438	3.42	2.0	8026	862126	3.75	2.0	1.99	0.33 *	0.16
SOUTH	3815	551044	4.08	1.7	9192	913255	4.13	1.8	1.78	0.05	0.03
WEST	2018	353540	3.60	1.8	5088	545248	3.70	1.9	1.84	0.10	0.05
CURRICULUM:											
GENERAL	3994	679408	3.34	1.8	10176	1099978	3.58	1.9	1.85	0.23 *	0.13
ACADEMIC	5023	1042789	4.72	1.6	10491	1135281	5.01	1.6	1.60	0.28 *	0.18
VOCATIONAL	2753	450809	2.97	1.7	6850	730207	3.36	1.8	1.80	0.39 *	0.22
COMMUNITY TYPE:											
URBAN	3015	520626	3.87	1.8	6432	603016	4.21	1.8	1.83	0.34 *	0.19
SUBURBAN	5751	1129230	4.11	1.8	13458	1490643	4.17	1.9	1.87	0.05	0.03
RURAL	2686	475034	3.58	1.9	8038	916491	3.80	2.0	1.95	0.22 *	0.11

*SIGNIFICANT AT .05 OR LESS

There was no significant change in the amount of instruction in English. The mean number of semesters of English was 5.83 in 1972 and 5.86 in 1980. This was not surprising since most high schools require students to take a course in English each semester. Females, high SES students, Blacks, Catholic school students, students in urban schools, and students in the academic curriculum showed small but significant increases between 1972 and 1980 in the amount of English taken. Cross-tabulations show significant increases in the amount of English taken by males and females in the academic curriculum.

The amount of science taken by students decreased slightly but significantly between 1972 and 1980. In 1972 students reported taking an average of 3.71 semesters but, by 1980, this had declined to 3.46 semesters. The decline was greater for males than for females and occurred primarily among middle and low SES students, White students, public school students, and students in the general and vocational curriculum. Cross-tabulations show significant decreases for both males and females in the general curriculum for low and middle SES students in the general curriculum, and for low SES students in the academic curriculum. High SES students in the academic curriculum showed a significant increase in the number of semesters of science taken.

There was a larger increase in number of courses which students reported taking in the social sciences, declining from 5.21 semesters in 1972 to 4.64 semesters in 1980. This decrease was significant for all classification groups. The decreases are also persistent across all cross-classifications.

The largest change in course-taking behavior, however, occurred in foreign languages where there was a decline from 2.64 semesters of instruction in 1972 to 1.65 semesters in 1980. Again, this decrease was consistent across classification groups and across cross-classifications. Despite this decline academic curriculum students continued to take more semesters of foreign language instruction than general or vocational curriculum students.

In summary, students showed a small but significant increase in the number of courses taken in mathematics, no change in the amount of coursework in English, and significant decreases in the amount of coursework in science, social science, and foreign languages. The decrease in foreign languages was the greatest, equivalent to a full semester of instruction.

Taken together, the results in this chapter show several major changes in students' attitudes, values and behaviors between 1972 and 1980. Educational aspirations increased for females and for students in the academic curriculum. More females in 1980 than in 1972 planned to enter a 4-year college after high school. There was an increase in the percentage of students who believed they had the ability to complete college. Students placed higher value on job security and pay in 1980 than in 1972. Concern with social issues decreased markedly while interest in making money rose.

Table 6-49

SEMESTERS (HALF-YEARS) OF ENGLISH

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	12286	2272928	5.83	0.9	27864	3005326	5.86	1.2	1.09	0.03	0.03
SEX:											
MALE	6091	1124264	5.82	1.0	12727	1383276	5.83	1.2	1.13	0.02	0.01
FEMALE	6192	1147961	5.84	0.9	13954	1500031	5.92	1.1	1.02	0.08 *	0.08
SES:											
LOW	3444	539892	5.80	1.0	8254	797188	5.78	1.3	1.20	-0.02	-0.02
MIDDLE	5894	1167770	5.81	1.0	12682	1411330	5.85	1.1	1.08	0.05	0.04
HIGH	2909	559051	5.91	0.9	6141	719608	6.01	0.9	0.92	0.11 *	0.12
RACE:											
WHITE	9641	1910475	5.84	0.9	19684	2345967	5.87	1.1	1.04	0.03	0.03
BLACK	1445	177446	5.82	0.9	3680	335855	5.95	1.3	1.18	0.13 *	0.11
ASIAN-AMERICAN	141	20867	5.87	0.8	364	39346	5.83	1.2	1.08	-0.04	-0.04
AMERICAN INDIAN	133	22386	5.56	1.0	211	21611	5.79	1.4	1.26	0.22	0.18
MEXICAN-AMERICAN	352	46743	5.64	1.0	1861	100116	5.64	1.5	1.42	-0.01	-0.01
PUERTO RICAN	65	6683	6.01	1.1	302	17840	6.06	1.2	1.20	0.04	0.04
OTHER HISPANIC	81	12262	5.74	1.0	955	65423	5.79	1.4	1.35	0.05	0.04
SCHOOL TYPE:											
PUBLIC	11045	2025354	5.82	1.0	24333	2702779	5.83	1.2	1.12	0.01	0.01
PRIVATE	35	9883	6.48	0.5	863	103388	6.12	0.8	0.78	-0.36 *	-0.46
CATHOLIC	778	176948	5.89	0.8	2668	199160	6.20	0.8	0.76	0.31 *	0.41
GEOGRAPHIC REGION:											
NORTHEAST	2942	670711	5.97	0.8	5617	689951	6.15	0.9	0.84	0.18 *	0.21
NORTH CENTRAL	3339	667607	5.74	1.1	8006	859481	5.64	1.3	1.25	-0.10 *	-0.08
SOUTH	3932	569433	5.87	0.8	9165	911814	6.01	1.0	0.96	0.13 *	0.14
WEST	2073	365177	5.66	1.1	5076	544079	5.62	1.3	1.24	-0.04	-0.03
CURRICULUM:											
GENERAL	4178	715287	5.81	1.0	10159	1099199	5.79	1.2	1.15	-0.02	-0.02
ACADEMIC	5083	1057683	5.93	0.9	10476	1133944	6.10	0.8	0.84	0.17 *	0.20
VOCATIONAL	3024	499655	5.65	1.0	6823	728008	5.63	1.4	1.29	-0.02	-0.02
COMMUNITY TYPE:											
URBAN	3155	544501	5.78	1.1	6408	601608	5.88	1.2	1.17	0.10 *	0.08
SUBURBAN	5975	1176146	5.85	0.9	13425	1486588	5.88	1.1	1.05	0.03	0.03
RURAL	2828	502039	5.84	0.9	8031	917129	5.83	1.2	1.11	-0.01	-0.01

*SIGNIFICANT AT .05 OR LESS

Table 6-50

SEMESTERS (HALF-YEARS) OF SCIENCE

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	12002	2212239	3.71	1.8	27482	2963192	3.46	1.9	1.90	-0.25 *	-0.13
SEX:											
MALE	6000	1105236	3.93	1.8	12570	1364606	3.68	2.0	1.93	-0.26 *	-0.13
FEMALE	6000	1106511	3.48	1.7	13753	1479646	3.29	1.9	1.84	-0.19 *	-0.10
SES:											
LOW	3372	523686	3.30	1.7	8123	785221	2.98	1.8	1.81	-0.33 *	-0.18
MIDDLE	5730	1132824	3.67	1.8	12518	1391644	3.39	1.9	1.89	-0.28 *	-0.15
HIGH	2860	549435	4.16	1.7	6084	712532	4.18	1.9	1.82	0.02	0.01
RACE:											
WHITE	9397	1857346	3.77	1.8	19465	2317289	3.48	2.0	1.91	-0.29 *	-0.15
BLACK	1449	178724	3.52	1.7	3604	328674	3.45	1.9	1.80	-0.07	-0.04
ASIAN-AMERICAN	138	20447	3.82	1.8	357	38220	4.12	1.9	1.90	0.30	0.16
AMERICAN INDIAN	120	19788	2.75	1.5	212	21783	3.02	1.7	1.62	0.27	0.17
MEXICAN-AMERICAN	350	46627	2.96	1.6	1828	98836	3.05	1.6	1.64	0.09	0.06
PUERTO RICAN	66	6750	3.67	1.7	290	17517	3.57	2.0	1.97	-0.10	-0.05
OTHER HISPANIC	81	12236	3.80	1.9	945	64933	3.31	1.8	1.84	-0.48	-0.26
SCHOOL TYPE:											
PUBLIC	10782	1968412	3.67	1.8	23988	2663244	3.39	1.9	1.90	-0.27 *	-0.14
PRIVATE	37	10261	4.71	1.5	858	102478	4.01	1.8	1.84	-0.70	-0.38
CATHOLIC	755	172780	4.12	1.7	2636	197471	4.05	1.8	1.78	-0.07	-0.04
GEOGRAPHIC REGION:											
NORTHEAST	2796	637836	4.27	1.7	5532	680186	4.02	2.0	1.93	-0.25 *	-0.13
NORTH CENTRAL	3268	652119	3.39	1.9	7896	848245	3.23	2.0	1.97	-0.16 *	-0.08
SOUTH	3910	564813	3.69	1.6	9027	898224	3.42	1.8	1.77	-0.26 *	-0.15
WEST	2028	357471	3.30	1.7	5027	536538	3.16	1.8	1.75	-0.14	-0.08
CURRICULUM:											
GENERAL	4065	689721	3.22	1.7	10004	1082888	3.01	1.8	1.73	-0.21 *	-0.12
ACADEMIC	5085	1058080	4.44	1.7	10353	1120754	4.45	1.8	1.77	0.01	0.00
VOCATIONAL	2852	464438	2.75	1.6	6716	715584	2.62	1.7	1.67	-0.13 *	-0.08
COMMUNITY TYPE:											
URBAN	3098	532901	3.53	1.8	6296	590089	3.50	1.9	1.87	-0.04	-0.02
SUBURBAN	5823	1144546	3.85	1.8	13250	1466021	3.50	1.9	1.90	-0.35 *	-0.19
RURAL	2763	485944	3.60	1.8	7936	907082	3.38	1.9	1.91	-0.22 *	-0.12

*SIGNIFICANT AT .05 OR LESS

Table 6-51

SEMESTERS (HALF-YEARS) OF SOCIAL STUDIES

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	12256	2268019	5.21	1.3	27724	2987813	4.64	1.6	1.48	-0.58 *	-0.39
SEX:											
MALE	6076	1121728	5.26	1.3	12679	1376254	4.67	1.6	1.49	-0.59 *	-0.40
FEMALE	6177	1145588	5.17	1.3	13877	1491507	4.62	1.5	1.46	-0.55 *	-0.38
SES:											
LOW	3432	538240	5.21	1.3	8228	793765	4.47	1.7	1.55	-0.74 *	-0.47
MIDDLE	5883	1166225	5.23	1.3	12622	1404423	4.66	1.5	1.46	-0.57 *	-0.39
HIGH	2902	557340	5.20	1.3	6116	715268	4.79	1.5	1.41	-0.41 *	-0.29
RACE:											
WHITE	9629	1907092	5.21	1.3	19605	2334037	4.66	1.5	1.45	-0.55 *	-0.38
BLACK	1439	177009	5.25	1.2	3652	333225	4.54	1.7	1.56	-0.71 *	-0.46
ASIAN-AMERICAN	140	20717	5.38	1.0	362	38907	4.71	1.5	1.36	-0.67 *	-0.49
AMERICAN INDIAN	131	22091	5.04	1.3	213	21887	4.37	1.7	1.57	-0.67 *	-0.43
MEXICAN-AMERICAN	348	46352	5.19	1.2	1849	99656	4.31	1.7	1.62	-0.88 *	-0.55
PUERTO RICAN	65	6683	5.57	1.4	297	17729	4.74	1.7	1.66	-0.83 *	-0.50
OTHER HISPANIC	81	12695	4.92	1.2	956	64905	4.51	1.7	1.65	-0.41	-0.25
SCHOOL TYPE:											
PUBLIC	11025	2021952	5.22	1.3	24202	2687407	4.61	1.6	1.48	-0.61 *	-0.41
PRIVATE	35	9883	4.92	1.7	863	103525	4.68	1.5	1.53	-0.24	-0.16
CATHOLIC	770	175405	5.12	1.2	2659	196880	4.90	1.5	1.43	-0.22 *	-0.15
GEOGRAPHIC REGION:											
NORTHEAST	2928	667291	5.27	1.3	5578	683857	4.99	1.5	1.39	-0.28 *	-0.20
NORTH CENTRAL	3344	669039	5.23	1.3	7957	854840	4.63	1.6	1.51	-0.60 *	-0.40
SOUTH	3924	568847	5.05	1.3	9141	909058	4.41	1.6	1.50	-0.64 *	-0.43
WEST	2060	362842	5.35	1.2	5048	540057	4.57	1.5	1.45	-0.78 *	-0.54
CURRICULUM:											
GENERAL	4171	714397	5.29	1.3	10113	1094017	4.59	1.6	1.51	-0.70 *	-0.46
ACADEMIC	5069	1054420	5.26	1.2	10421	1126445	4.84	1.5	1.39	-0.42 *	-0.30
VOCATIONAL	3015	498899	5.01	1.3	6784	723297	4.38	1.6	1.54	-0.63 *	-0.41
COMMUNITY TYPE:											
URBAN	3131	540625	5.14	1.3	6374	598851	4.60	1.6	1.49	-0.54 *	-0.36
SUBURBAN	5958	1172238	5.22	1.2	13352	1475931	4.66	1.5	1.46	-0.56 *	-0.38
RURAL	2839	504697	5.28	1.3	7998	913031	4.62	1.6	1.52	-0.66 *	-0.44

*SIGNIFICANT AT .05 OR LESS

Table 6-52

SEMESTERS (HALF-YEARS) OF FOREIGN LANGUAGES

	NLS 1972				HSB 1980						
	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
TOTAL	9976	1868395	2.64	2.2	27573	2971555	1.65	2.1	2.10	-0.99 *	-0.47
SEX:											
MALE	4858	909112	2.38	2.1	12560	1363884	1.48	2.0	2.03	-0.90 *	-0.44
FEMALE	5114	958485	2.88	2.2	13874	1490834	1.84	2.1	2.14	-1.04 *	-0.48
SES:											
LOW	2557	400436	1.79	2.1	8169	788875	1.13	1.8	1.88	-0.65 *	-0.35
MIDDLE	4770	956400	2.56	2.2	12553	1395654	1.52	2.0	2.02	-1.04 *	-0.52
HIGH	2622	506190	3.47	2.0	6094	713085	2.52	2.3	2.18	-0.94 *	-0.43
RACE:											
WHITE	7923	1591648	2.70	2.2	19488	2321438	1.65	2.1	2.09	-1.05 *	-0.50
BLACK	1062	127404	2.07	2.1	3631	331761	1.47	2.0	2.01	-0.61 *	-0.30
ASIAN-AMERICAN	133	19111	3.19	1.9	360	38682	2.34	2.1	2.06	-0.86 *	-0.42
AMERICAN INDIAN	102	16122	1.37	2.0	208	21394	0.86	1.7	1.78	-0.51	-0.29
MEXICAN-AMERICAN	322	42867	2.23	2.1	1854	99596	1.80	2.0	2.04	-0.44 *	-0.22
PUERTO RICAN	56	6273	3.24	2.3	296	17688	2.78	2.5	2.46	-0.46	-0.19
OTHER HISPANIC	68	10464	3.87	1.9	955	65113	1.80	2.3	2.28	-2.07 *	-0.91
SCHOOL TYPE:											
PUBLIC	8930	1650286	2.50	2.2	24064	2672068	1.51	2.0	2.04	-0.99 *	-0.49
PRIVATE	40	11105	4.75	2.4	851	101193	2.94	2.5	2.49	-1.81 *	-0.73
CATHOLIC	717	166596	3.88	1.9	2658	198294	2.82	2.1	2.05	-1.06 *	-0.52
GEOGRAPHIC REGION:											
NORTHEAST	2312	540588	3.70	2.0	5540	679430	2.36	2.3	2.21	-1.34 *	-0.60
NORTH CENTRAL	2827	570554	2.00	2.0	7910	850526	1.37	2.0	1.98	-0.63 *	-0.32
SOUTH	2973	436253	2.42	2.1	9082	902324	1.31	1.9	1.93	-1.11 *	-0.57
WEST	1864	320999	2.27	2.1	5041	539275	1.74	2.0	2.05	-0.54 *	-0.26
CURRICULUM:											
GENERAL	3211	549218	1.75	2.0	10049	1086832	1.15	1.8	1.82	-0.60 *	-0.33
ACADEMIC	4802	998674	3.53	2.0	10415	1126266	2.68	2.2	2.15	-0.85 *	-0.40
VOCATIONAL	1963	320503	1.35	1.8	6710	715600	0.81	1.5	1.58	-0.54 *	-0.34
COMMUNITY TYPE:											
URBAN	2642	461884	2.76	2.2	6344	594833	1.80	2.1	2.15	-0.96 *	-0.45
SUBURBAN	4968	989658	2.90	2.1	13276	1469579	1.83	2.1	2.13	-1.06 *	-0.50
RURAL	2122	378412	1.82	2.0	7953	907143	1.24	1.9	1.89	-0.58 *	-0.31

*SIGNIFICANT AT .05 OR LESS

Students became more self-confident but less sure of their ability to control their own lives. The amount of homework done decreased. There was a decrease in the amount of coursework taken in science, social studies and foreign languages but an increase in the amount of coursework in mathematics.

CHAPTER VII

PARTITIONING MEAN TEST SCORE CHANGES

As was indicated in Chapter II, the relational analysis in this study utilizes three methods: (1) partitioning of mean test score changes, (2) analysis of covariance partitioning, and (3) path analysis. This chapter utilizes the first method to partition the total score change into the part due to population shifts and the part due to mean changes within the classification groups. This type of analysis provides considerable detail about how classifying an individual on one or two variables at a time relates to test score change between 1972 and 1980.

A. METHODOLOGY

The overall mean for two or more subgroups can be viewed as the sum of the subgroup means when each subgroup mean is weighted in accordance with its proportion of the total group. In other words,

$$\overline{X}_T = (p\ \overline{x})_1 + (p\ \overline{x})_2 + \ldots\ldots$$

Where $\overline{X}_T$ is the mean for total sample and p is proportional size of each subgroup and $\overline{X}$ is the mean of each subgroup.

Furthermore, a decline or gain in some time period--in the present case, from 1972 to 1980--is as follows:

$$\overline{X}_{T80} - \overline{X}_{T72} = (p_{80}\ \overline{x}_{80} - p_{72}\ \overline{x}_{72})_1 + (p_{80}\ \overline{x}_{80} - p_{72}\ \overline{x}_{72})_2 + \ldots\ldots$$

Thus, the total mean can change as a result of either a change in the mean of a subgroup or a change in the proportional representation of that subgroup. We will refer to the first component as the group mean change or G and the second as the population shift change or P. To estimate the magnitude of these components, two different calculations are made. The first component (G) is calculated by applying, for each subgroup, the group's proportion in 1972 to the group's mean in the 1980 population, and then summing over all subgroups. The result is the mean score in 1980 that would have been expected if each subgroup's representation in the population had not changed but its mean had changed. The difference between this number and the observed 1972 mean is the change due to subgroup mean changes, or G.

The change due to population shift, or P, is calculated by applying, for each subgroup, the group's proportion in the 1980 population to the group's mean score in 1972, and then summing over all subgroups and proceeding as with G.

The sum of P and G is not equal to the total mean change for the grouping variable, for there may be an interaction between the two components. This interaction component (I) is calculated simply by subtracting the sum of P and G from the total mean change. In most cases, the term is a negligibly small number, and even where it is not its meaning usually is so difficult to interpret that the authors have not attempted to do so.

1. Moment of Group Mean Change

When, in a given time period, the means for two or more subgroups change and, in addition, each subgroup's proportion in the population changes, it is not obvious how much each subgroup may have contributed to the total mean change. For this reason, a fourth statistic was computed that is referred to as the moment of the subgroup mean (M) because of its similarity to the familiar moment or torque in physics. This is the difference between the group's "weighted distance" in 1980 and in 1972. This distance is computed as the product of the group's proportional representation in its own year and the deviation of the group's mean from the 1972 grand mean. The moment, M, or, more precisely, the change in moment may be expressed as

$$\Delta M = p_2(\bar{X}_2 - \bar{X}_{1T}) - p_1(\bar{X}_1 - \bar{X}_{1T})$$

where p_2 and p_1 are the proportions at time 2 and time 1, $\bar{X}_{1T}$ is the total mean at time 1, and $\bar{X}_2$ and $\bar{X}_1$ are the subgroup means at time 2 and time 1. The sum of the ΔM's or the change in the weighted distances over all groups is the distance of the whole population from the original mean, i.e., the difference between the 1980 and 1972 grand mean. In the tables to be presented shortly, the ΔM for each subgroup was divided by the total mean change from 1972 to 1980 and multiplied by 100. This quantity is referred to as partition due to group. A large number in the partition due to group column can be a result of a population change for a highly deviant group (an increased proportion for a low-scoring group or decreased representation of a high-scoring group) and/or a score decline for a group that is unusually large relative to other groups. Also note that if, for a particular group, $p_2 = p_1$, then $\Delta M = p(\bar{X}_2 - \bar{X}_1)$. Interpretation of the score partitions must be in conjunction with score mean and proportion statistics, as well as the change due to population shift index.

In discussing the results for a particular grouping variable, e.g., race/ethnicity, we frequently will refer to the contribution of a particular category or subgroup, e.g., White students, to the overall decline, judging from the change in the subgroup's moment. It should be understood in all cases that the apparent causation may well be spurious; that is, the change in the variable in question may be a reflection of a change in some more fundamentally causative variable with which it is correlated. In the interest of brevity, we usually will omit the proper qualifications.

2. Some Comments on Mean Score Change

To assist the reader in interpreting mean score changes for a group from 1972 to 1980, the following comments are offered. The mean score for a particular subgroup of the total sample can change from 1972 to 1980 for at least four possible reasons:

1. The members of the category may in 1980 represent a smaller more selected sample (or a larger, less selected sample) of the population than in 1972. For example, since the proportion of students in the academic curriculum decreased from 1972 to 1980, it is reasonable to expect less score decline or even a score gain in this subgroup from 1972 to 1980 if the students remaining in this curriculum represent a higher ability stratum of the population.

2. A difference in the mean score for a subgroup may reflect a change in the personal characteristics of the population of students represented by the subgroup category. For example, in 1972 the category "Suburban students in academic programs" may have been predominantly White students, whereas in 1980 the category may have included a significant fraction of non-White students.

3. From 1972 to 1980, the classroom, school, or community environment may have changed in such a way as to change the behavior of the students at the two times.

4. The meaning of the category may have changed. For example, in 1972 the category "Less than 5 hours of homework" may have meant that the average category member did 4 hours of homework each week, whereas in 1980 the members of that category did an average of 2 hours of homework each week. In other words, the authors may have been only partially successful in holding certain independent variables constant by subdividing the total group into categories. Each of these possible interpretations are exemplified in the results reported in the next section.

B. VARIABLES

The dependent variables for the relational analyses are the three IRT scores already described in the descriptive analyses: the Vocabulary, Reading, and Mathematics scores. The classification or grouping variables for the score change partitioning are:

1. Total
2. Sex: male, female
3. Socioeconomic status (SES) (high, middle, low)
4. Race/ethnicity (White, Asian-American and American Indian; Black; Mexican-American; other Hispanic)
5. School type (public vs. nonpublic)
6. Geographical region (Northeast, North Central, South, West)
7. Curriculum (academic vs. general and vocational)
8. Community type (urban, rural, suburban)
9. Homework time/week (5 or more hours vs. less than 5 hours)
10. Level of education planned (less than high school, high school, vocational/junior college, college, graduate/professional school)
11. Number of "study aids" in home (2 or fewer vs. 3 or more)
12. Attitude towards more academic emphasis (agree vs. disagree)
13. Projects/labs used in courses (never-seldom vs. fairly often-frequently)
14. Essays used in courses (never-seldom vs. fairly often-frequently)
15. Percent of teachers with M.S., Ph.D. (0-49% vs. 50-100%)
16. Percent of White students in school (0-89% vs. 90-100%)
17. Percent college-bound in school (0-29%, 30-49%, 50-69%, 70-100%)
18. High school offers Advanced Placement courses (Yes/No)
19. Semesters of mathematics (4 or fewer vs. 5 or more)
20. Semesters of science (4 or fewer vs. 5 or more)
21. Semesters of foreign language (3 or fewer vs. 4 or more)
22. Athletic participation (Yes vs. No)
23. Mother's educational aspirations for son or daughter (No 4-year college vs. 4-year college)

C. RESULTS

The results are presented separately for each of the three tests--vocabulary, reading, and mathematics. In each case the test score is the IRT (Item Response Theory) scaled score. (See Rock et al., 1984a, for a description of the psychometric procedures.)

1. Vocabulary

Vocabulary test results were determined for each of the subcategories of the 23 classification variables. The results are shown in Table D-1 of Appendix D.

a. Sex. The results for sex will be described in considerably more detail than subsequent variables in order to illustrate the method used. Table 7-1 shows the relevant results for IRT Vocabulary, with sex as the classifying variable. Notice first that, as was indicated in the descriptive analysis, women displayed greater declines from 1972 to 1980 than men (-.98 vs. -.54). The origin and cause of this decline are unknown, but the tables suggest some hypotheses.

That the score of the average female declined more than that of the average male is a fact that must be dealt with. But whether the difference contributed to the mean change for the total sample depends on the proportional size of the female sample in 1972 and 1980. As shown in Section A of Table 7-1, the estimated size of the male population decreased by 207,000 and the female population decreased by 78,000, leading to changes in the proportions from .50 to .47 for males and from .50 to .53 for females. (These estimates are based on actual data cases. In 1972, the sex identification item of the Student Questionnaire was omitted by 5 sample members or 1,017 in the weighted sample, and in 1980 the parallel item was omitted by 1,247 sample members or 127,789 in the weighted sample.) In accordance with the procedure described earlier we can estimate that these changes in population proportions would have resulted in an overall score gain of .01, as shown in Section F of Table 7-1. This is a negligible amount.

We also can estimate how much the total mean would have changed as a result of subgroup mean changes (See Section E in Table 7-1). This is -.76 or practically all of the observed change, since the interaction (see Section G in Table 7-1) is negligible. In other words, the total change did not result from a population shift or from an interaction of the shift and the subgroup means, but from a change in the subgroup means themselves.

How much each subgroup contributed to the 1972-1980 change is indicated by Section D in Table 7-1. This change is ΔM/total difference. The results indicate that the change in score means and change in population proportions for the women accounted for twice as much of the change as that accounted for by the men. Since the change in the population

Table 7-1

Mean IRT Vocabulary Scores in 1972 and 1980 by Sex, with Partitioning

	Year		
	1972	1980	1980-1972 Difference
A. Estimated population size			
Male	1,426,000	1,218,000	-207,000
Female	1,434,000	1,356,000	- 78,000
Total	2,859,000	2,574,000	-285,000
B. Proportion of high school senior population			
Male	0.50	0.47	-.03
Female	0.50	0.53	.03
C. Mean Vocabulary score			
Male	6.44	5.90	-.54
Female	6.67	5.69	-.98
Total	6.55	5.79	-.77
D. Partition of 1972-1980 difference due to group (the change in moment)			
Male			33%
Female			67%
E. Expected change with no population shift (G)			-0.76
F. Change due to population shift (P)			0.01
G. Change due to interaction (I)			-0.01

proportions was slight, the contribution of each subgroup was approximately proportional to the score decline of each group.

In order to examine the effect of grouping by sex when other variables were held roughly constant, the sex categories were subdivided. The result, when cross-classified by socioeconomic status, was that middle and high SES women displayed the largest score declines. When Vocabulary scores were cross-classified by sex and by race/ethnicity, the White females showed the greatest decline (-1.00), and contributed by far the most to the total decline (54%). They were followed by the White males (-.57) and the Black females (-.33). The Black males actually gained in IRT Vocabulary score (.47), but, because their proportional cell size was relatively minor, they had a negligible effect on the overall decline.

The scores of females in each curriculum subgroup declined more than the males, with the scores of females in academic programs declining the most (-1.00). But the women in the general and vocational programs contributed more to the total decline since their population proportion increased more. The differing patterns of change in school program enrollments by males and females was one of the more important educational trends from 1972 to 1980, as was shown in the descriptive analyses. In number, the males in academic programs decreased the most while the number of females in vocational and general programs increased the most. When the regions were cross-classified by sex, women in the Northeast emerged with the largest decline and they also contributed the most to the overall decline.

The scores of women who reported they devoted less than five hours each week to homework declined appreciably more than the scores of women who reported five hours or more and contributed much more to the total decline, apparently because the proportional number in the category increased substantially. Students who felt that their schools should have more academic emphasis tended to have lower vocabulary test scores than students who disagreed, and the number of such students increased from 1972 to 1980, especially among women. One of the largest vocabulary score declines for any subgroup was the decline of 1.30 scaled score points for the women who disagreed that their schools needed more academic emphasis. This category also declined dramatically in number, from 616,000 to 347,000. As was noted in the descriptive analysis, satisfaction with the academic program on the part of students decreased markedly from 1972 to 1980. Why women who were satisfied with the academic emphasis in their school should display such a large score decline is not clear. What we do know is that in 1972 they were high scoring (7.20) and in 1980 they were near the middle of the distribution (5.90). The largest score decline was for women in "mostly White" schools, and these women also contributed most to the overall decline.

b. Socioeconomic Status. Next the total sample was divided into three socioeconomic status (SES) groups, and the changes were partitioned in the same way as for sex. As shown in Table D-1 of the Appendix, the score decline is correlated with level of SES; the low group displayed the least decline (-.53) and the high group the greatest (-.93). As with sex, the component attributable to population shift is small, but this result is meaningless since the SES categories for 1972 and 1980 were created by standardizing within year.

Cross-classification of score changes by SES and by race/ethnicity and curriculum yielded results that tended to be similar to the main effects.

Cross-classification of SES by region and by amount of homework indicated that high SES students in the South displayed the greatest decline. Population shifts for combinations of SES and amount of homework contributed appreciably to the overall decline, apparently because of increases in the proportion of low and middle SES students reporting they did less than five hours of homework each week.

Cross-classification of SES by attitude towards academic emphasis and by percentge of White students in the school showed that high SES students who did not agree that their schools should have more academic emphasis--a group with high mean scores--declined appreciably (-.96) and contributed the most to the total decline.

Middle SES students in mostly White schools (90-100% White), which is the largest category by far in size, contributed the most to the total score decline simply because of its size.

c. Race/Ethnicity. In the third major analysis of test score changes by race/ethnicity, the change due to population shifts is non-trivial (Table D-1). As might be expected since the student population is predominantly White, the partitioning of the total change indicates that the White students contributed by far the most to the score decline. The Other Hispanic group showed approximately the same score decline as the White students, but their numbers are so small that their contribution to the grand mean is slight.

As indicated above, White female students showed the largest decline and contributed the most to the overall decline.

Cross-classification of race/ethnicity by curriculum yielded one of the largest population shift effects observed (-.39) as a result of a huge decline in the number of a high-scoring subgroup, the White students in academic programs, and because of the simultaneous slight increase in the proportion of a low-scoring group, the White students in vocational and general programs. Apparently, the decline in high school enrollments from 1972 to 1980 occurred largely among White students in academic programs, while White students in vocational and general programs increased slightly, presumably because of shifts of White students from the academic program to the vocational and general program. A small share of the score decline in this table (8%) was attributable to a small increase in the proportion of an extremely low-scoring group, the Black students in vocational and general programs.

Cross-classification of race/ethnicity by geographical region, and by hours of homework indicated that shifts in the proportion of racial groups in various geographical regions may have accounted for as much as .20 points of the total decline, with decreasing numbers of White students in the Northeast and in the North Central the leading contributors.

White students who reported less than five hours of homework each week showed the greatest decline and the largest contribution to the total decline, primarily because of the large size of the subgroup.

Racial/ethnic cross-classification by attitude towards academic emphasis and by the percentage of White students in the school indicated that shifts in these categories may have contributed to much of the total score decline. White students who did not wish more academic emphasis in their school showed the greatest score decline and contributed the most to the total decline, apparently because they represent an above average group that decreased by almost 50 percent as a proportion of the population. The more important fact, however, is that from 1972 to 1980 the number of students who agreed that there should be more emphasis on academics increased by nearly 500,000.

Students in the Other Hispanic subgroup in predominantly White schools declined the most, but the White students in such schools contributed the most because of their larger numbers.

d. School Type. Students attending nonpublic schools tended to decline in IRT vocabulary by the same amount as public school students, and controlling for sex, SES, race, curriculum, geographical region and hours of homework did not make an appreciable difference (Table D-1). Because of the relatively large size of the public school groups, they accounted for most of the total decline. The largest decline was shown by nonpublic students in the South. Their number was too small to result in a significant contribution to the total decline.

e. Geographic Region. Classification of the data by geographical region revealed few insights not reported already. Within each region higher mean declines tended to be displayed by females, high SES students, Whites, students enrolled in the academic curriculum, students reporting less homework, students disagreeing that their school should place more emphasis on academics, and by students in predominantly White schools. The substantial decrease in the number of White students in the Northeast and academic students in the Northeast, both of which are high-scoring groups, resulted in significant contributions to the overall score decline.

f. Curriculum. Grouping by curriculum indicated that shifts in the numbers enrolled in each curriculum category resulted in major contributions to the score decline. The academic students displayed the greatest mean vocabulary test score decline (-.67 vs. -.50 for the general and vocational students) and also contributed to the overall decline since they constituted a high-scoring group that decreased in number. However, the vocational and general category contributed slightly more since they were a low-scoring category that increased in number.

The cross-classifications yielded no new findings except for attitudes toward academic emphasis and percentage of White students in the school. The striking decline in the number of academic students who did not think there should be more academic emphasis resulted, along with concomitant changes in other categories, in an unusually high figure for the total change due to population shift, namely, .45. In other words, over half of the total decline could be attributable to this effect alone.

The large decline in the number and proportion of academic students in predominantly White schools also resulted in a large estimate of total change due to population shift (-.34).

g. Community Type. Classification by community type generated results which define further the schools which were the large contributors to the decline. Students in urban schools declined the most, but, because of their larger number, suburban schools contributed most to the decline. The cross-classifications point to the following categories within community type as significant contributors to the total decline:

Suburban females

Suburban high-SES students

Suburban White students

Suburban academic students

Suburban students reporting less than five hours of homework

Suburban students disagreeing that there should be more academic emphasis

Suburban students in predominantly White schools

Urban students in the Northeast displayed an unusually large decline (-1.43) but, because of their relatively small number, they did not contribute appreciably to the decline.

h. Homework per Week. The number of hours that the students reported they devoted to homework each week resulted in a number of substantial differences when the students were divided into those groups that reported less than five hours each week and those that reported five hours or more. Hours of homework clearly is correlated with IRT Vocabulary score. Students reporting less than five hours each week had mean scores in 1980 that were nearly one-half a standard deviation less than those reporting five hours or more. Females who reported less than five hours declined 1.09 on the average versus a decline of .22 for those who reported five hours or more. The comparable figures for men were -.60 and +.03. Since the number of women reporting less than five hours of homework increased from 28 percent of the total sample in 1972 to 37 percent in 1980, the contribution of the group to the total decline amounted to -.44 or 56 percent of the total change.

Similarly, the SES groups that reported less homework showed substantially greater declines than those reporting more homework, and the same held for the other cross-classifications. The cross-tabulation of "academic emphasis" and hours of homework resulted in another large estimated population shift, apparently attributable primarily to the massive increase (from 790,000 to 1,300,000) in the number of students who reported less than five hours homework and who agreed that their schools should have placed more emphasis on basic academic subjects.

i. Education Planned. Unfortunately, a large number of students failed to answer this item in the 1972 survey, which introduces added uncertainty in the results. Of most interest is the decrease in the proportion planning to attend college. As a result, this category contributed more than the others to the overall decline.

j. Study Aids in Home. Sample members who reported three or more study aids in their home had higher mean vocabulary scores than students who reported two or less aids, but both groups showed approximately equal declines. However, because the proportion of students reporting three or more study aids declined (from .8 to .7), that category contributed appreciably more to the overall decline than the "two or less" category. Furthermore, the cross-classifications by sex, SES, race, and curriculum indicate that the females who identified themselves as being White, Asian-American or American Indian, contributed the most to the decline.

k. Attitude towards Academic Emphasis. Students who disagreed with the proposition that there should be more emphasis on academics in the curriculum had higher Vocabulary scores than those who agreed with the statement and also showed greater declines; the women, White, Asian-American, and American Indian, and academic curriculum categories again contributed the most to the decline.

l. Instructional Variables. Two measures were selected as important dimensions of instruction. The first measure, whether projects and labs were used in the courses taken by the student during "this year," generated no relevant differences. The second measure, whether essays were used, is more interesting. Those who reported essays were used fairly often or frequently had higher mean scores in both 1972 and 1980. Women who reported they never or seldom wrote essays declined more than women who wrote essays "fairly often or frequently." "Other Hispanic" students who never or seldom wrote essays declined more than other racial/ethnic groups and students who disagreed that there should be emphasis on academic matters and who never or seldom wrote essays declined markedly (-1.34). They also declined in number.

m. School Variables. Of five measures selected to reflect possibly important school variables, three provided noteworthy results. Students in schools in which 90 to 100 percent were White displayed greater declines than students in schools with less than 90 percent Whites, and in these predominantly White schools, the White students declined most and also accounted for the largest share of the total decline.

Secondly, schools which did not offer Advanced Placement courses displayed greater declines and contributed most to the overall decline; within this group, the higher SES, White women in academic programs declined the most and contributed most to the overall decline.

Thirdly, students in schools with 50 percent to 100 percent of full-time teachers with advanced degrees declined more than students in schools in which less than 50 percent of the teachers had advanced degrees; they also accounted for a larger share of the overall decline. In addition, the following categories displayed high declines and large shares of the total decline:

High percentage schools in the South

High percentage schools in which students did less homework

Low percentage schools in which students disagreed with more academic emphasis

n. Exposure to Subject Matter. The number of semesters in which the student enrolled in mathematics, science, and foreign language seems to have played an important role. Students enrolled in 4 or fewer semesters of mathematics or 4 or fewer semesters of science displayed greater declines and contributed more to the total decline than students taking 5 or more semesters. The increase in the proportion of students taking more mathematics and science could have produced a gain in overall mean score; however, the group means decreased enough to offset the population increase.

The results in the foreign languages are somewhat different from those for mathematics and science. Students who reported they took 4 or more foreign language courses had relatively high Vocabulary scores (an interesting finding in itself), and the proportion of students taking fewer language courses increased. However, when the sex of the student is taken into consideration, the absolute number of the men taking fewer language courses decreased by approximately 130,000 and the number of women by 15,000. Thus, there was a loss from the sample, from 1972 to 1980, of a relatively large number of men who took fewer language courses, and a corresponding increase in the proportion of women taking fewer language courses. Nevertheless, the mean decline in vocabulary score was greater for the women than for the men, so the overall decline cannot be said to result simply from a population shift. Indeed, only 7/78ths or 9 percent was attributable to a population shift. But it was the men who "caused" the population shift in terms of their decrease in absolute number. This effect demonstrates the complexity of attributing causation to subgroups of the total sample.

o. Participation in Athletics. This measure, which could have been discussed as an "exposure" variable, was included in this analysis because of the changes in rate of participation from 1972 to 1980. Specifically, this rate increased from 45 percent to 52 percent. The gain was largely attributable to the women athletes, who increased in number by 103,000 or 23 percent while the men athletes decreased by 47,000 or 6 percent. The female nonathletes declined most in score and contributed most to the overall decline, presumably because of their relatively large number.

As far as the other cross-classifications are concerned, the pattern followed the main effects already reported.

p. Mother's Educational Aspirations for Student. In both 1972 and 1980 the mean Vocabulary scores of students for whom mothers had aspirations of four-year college attendance were substantially higher than those of the balance of the students, but the mean scores of the women in this category declined substantially from 1972 to 1980 and contributed most to the total change. "Other Hispanics" in the "No four-year college" category also declined substantially but, because of their relatively small numbers, did not contribute appreciably to the total decline.

2. Reading

For this test and the Mathematics test to follow, we will focus primarily on results that either strongly reinforce conclusions suggested by the Vocabulary results or that are at odds with them.

As shown in Table 7-2, the results for IRT Reading, when classified by sex, are similar to those of IRT Vocabulary, with the exception that the change in moment of the female category is less than it was for the Vocabulary score, apparently because the males declined almost as much as the females. Between 1972 and 1980 the scores of the males and females in Reading converged to a point of equality.

The results for other grouping variables (shown in Appendix Table D-2) are similar except that mean Reading scores for students in the South declined more than for other regions and more than the Vocabulary scores declined. The cross-classifications indicate that males in the South and middle-class students in the South declined the most.

The cross-classification of community type and SES is of particular interest in that the results appear to document the migration of higher SES subgroups from urban areas. The middle and high SES urban and suburban categories decreased in number while the rural categories all increased in number. The largest decline was for high SES students in the suburbs, followed by low SES students in rural areas. Whether the "movers" or the "stayers" changed most in mean score would have required longitudinal data, but the suggestion is that the movers declined least since the mean for the rural category, which increased the most in size, declined the least in score.

The analysis by educational aspirations revealed unusually large declines, especially for students with low educational aspirations. However, the relatively large amount of missing data for this particular measure requires that the results be interpreted with caution.

Table 7-2

Mean IRT Reading Scores in 1972 and 1980 by Sex with Partitioning

	Year		
	1972	1980	1980-1972 Difference
A. Estimated population size			
Male	1,427,000	1,215,000	-212,000
Female	1,435,000	1,352,000	- 83,000
Total	2,862,000	2,567,000	-295,000
B. Proportion of population			
Male	0.50	0.47	-.03
Female	0.50	0.53	.03
C. Mean Reading score			
Male	9.83	8.95	-0.88
Female	9.95	8.96	-0.99
Total	9.89	8.95	-0.93
D. Partition of total change due to group (M)			
Male			44%
Female			56%
E. Expected change with no population shift (G)			-0.93
F. Change due to population shift (P)			0.00
G. Change due to interaction (I)			-0.00

The measure of study aids in the home also revealed large declines--larger for comparable groups than for the Vocabulary score. Those students reporting two or fewer study aids declined more than the "three or more" category. High SES students reporting two or fewer aids showed a high decline (-2.21), but because they were a small proportion of the population their contribution to the overall decline was slight.

3. Mathematics

Generally, the grouping variables that seem to be implicated in the declines of the Vocabulary and Reading scores are also implicated in the decline of the IRT Mathematics score. (See Table 7-3.) However, the magnitude of the changes due to population shifts tends to be greater than in the case of Vocabulary and Reading. Furthermore, the major grouping variables generated a number of noteworthy differences. (Appendix Table D-3.) Students in the South declined the most (-1.88) and contributed most to the overall decline. Students who reported less than five hours homework each week declined considerably and accounted for most of the total decline (99%). Other subgroups that declined appreciably and contributed to the total decline were:

> Students who disagreed that there should be more emphasis on academics
>
> Males (unlike vocabulary and reading)
>
> White students

When the sample was grouped by curriculum, neither group (i.e., neither the academic group nor the vocational/general group) declined appreciably, but because the academic group represented a high scoring group that declined substantially in proportion and the vocational and general group represented a low scoring group that gained in proportion, the value of P, the total change due to population shifts, was substantial (-.53). In addition, the cross-classifications pointed to certain subgroups as possibly having an important role:

> Males who disagreed that there should be more academic emphasis
>
> Low SES White students
>
> Low SES students reporting less than 5 hours of homework
>
> White students reporting less than 5 hours homework

Table 7-3

Mean IRT Mathematics Scores in 1972 and 1980 by Sex with Partitioning

	Year		
	1972	1980	1980-1972 Difference
A. Estimated population size			
Male	1,426,000	1,214,000	-213,000
Female	1,435,000	1,346,000	- 89,000
Total	2,861,000	2,560,000	-301,000
B. Proportion of population			
Male	0.50	0.47	-.03
Female	0.50	0.53	.03
C. Mean Mathematics score			
Male	13.79	12.83	-0.95
Female	12.09	11.39	-0.70
Total	12.94	12.07	-.92
D. Partition of total change due to group (M)			
Male			55%
Female			45%
E. Expected change with no population shift (G)			-0.83
F. Change due to population shift (P)			0.04
G. Change due to interaction (I)			-0.01

Public school students reporting less than 5 hours homework

Students in the South reporting less than 5 hours homework

Academic students who disagreed that there should be more emphasis on academics

Vocational and general curriculum students who reported 2 or fewer study aids in the home (low scoring students whose number nearly doubled)

Students who never or seldom had projects and labs and who reported less than 5 hours homework (large group with large decline who increased in proportion)

C. SUMMARY OF MEAN SCORE CHANGE PARTITIONING

The most relevant statistics concerning the score decline for Vocabulary, Reading, and Mathematics are summarized in Tables 7-4, 7-5, and 7-6. The first conclusion one can draw from these tables concerns the similarity of the numbers in them and the agreement across the three tests with respect to the subgroups that may have contributed the most to the total decline, as reflected in the quantity we have chosen to call Δ M, the change in the moment of the subgroup mean. This quantity might be described as the weighted distance of the 1980 group mean from the 1972 grand mean minus the weighted distance of the group's 1972 mean from the 1972 grand mean. Thus, it reflects (1) any change in the size of the group (as a proportion of the total sample), (2) any change in the mean of the group, and (3) the distance between the mean of the group and the grand mean.

Because of the many and complex reasons why a subgroup may have contributed to the overall decline, we have prepared Table 7 which lists the major reasons for the contribution of each of the subgroups that contributed the most.

Table 7-7 highlights a major conclusion from the score change partitioning analysis, namely that we must recognize three major categories of groups that contributed to the total score declines. The first category is those large groups that contributed a large amount to the decline simply because they represented a large number of individuals whose scores declined, but no more or less than students in other groups. The second category comprises population shifts--either increases in the proportional representation of low-scoring groups or decreases in the proportional representation of high-scoring groups. The third category comprises groups that exhibited large score declines and were substantial in size, for if they were small their contribution to the total decline was negligible.

Table 7-4

Population Shift Effect, Subgroup Mean Change Effect, and Change in Moment[1] of Grouping Variables by IRT Vocabulary Score

Variables	Population Shift	Group Mean Change	Largest Change in Moment (percent)	Subgroup With Largest Change in Moment
Demographic				
Sex	.01	-.76	67	Females
SES	-.06	-.74	46	Middle
Race/ethnicity	-.17	-.73	80	White students
Geographical region	-.06	-.79	32	South
Community type	-.09	-.88	55	Suburban
Student behaviors				
Curriculum	-.25	-.58	52	Vocational, general
Hours of homework	-.12	-.66	85	Less than 5 hours
Educational plans	.00	-1.45	35	College
Semesters, mathematics	.14	-1.01	71	4 or fewer
Semesters, science	.02	-.88	91	4 or fewer
Semesters, language	-.07	-.78	71	3 or fewer
Athletic participation	.00	-.87	55	No participation
Attitude, academics	-.24	-.70	58	Disagree with more emphasis
School characteristics				
Public, nonpublic	.02	-.92	92	Public
Projects used	-.06	-.79	57	Never, seldom
Essays used	-.01	-.83	57	Fairly often, frequently
Teachers ed.	.12	-.93	53	50-100% advanced
Percentage White	-.11	-.74	66	90-100%
Advanced placement	.12	-1.00	58	No advanced placement
Percentage, college	-.16	-.72	32	50-69%
Home support				
Study aids	-.20	-.68	62	3 or more
Mothers aspirations	.10	-1.05	69	4-year college

---

[1] Moment refers to the extent to which a subgroup may have contributed to the total decline in comparison to the other subgroups of that variable.

Table 7-5

Population Shift Effect, Subgroup Mean Change Effect, and Change in Moment[1] of Grouping Variables by IRT Reading Score

Variables	Population Shift	Group Mean Change	Largest Change in Moment (percent)	Subgroup With Largest Change in Moment
Demographic				
Sex	.00	-.93	55	Females
SES	-.07	-.90	44	Middle
Race/ethnicity	-.21	-.89	75	White students
Geographical region	-.05	-.99	40	South
Community type	-.06	-1.11	54	Suburban
Student behaviors				
Curriculum	-.31	-.69	59	Vocational, general
Hours of homework	-.14	-.80	89	Less than 5 hours
Educational plans	-.01	-1.86	35	Vocational, Junior College
Semesters, mathematics	.19	-1.25	71	4 or fewer
Semesters, science	.02	-1.08	91	4 or fewer
Semesters, language	-.09	-.96	71	3 or fewer
Athletic participation	.03	-1.07	50	Yes, participates
Attitude, academics	-.30	-.83	58	Disagree with more emphasis
School characteristics				
Public, nonpublic	.03	-1.12	92	Public
Projects used	-.07	-.96	62	Never, seldom
Essays used	-.02	-1.03	53	Fairly often, frequently
Teachers ed.	.12	-1.12	52	50-100% advanced
Percentage White	-.13	-.91	58	90-100%
Advanced placement	.12	-1.20	56	No advanced placement
Percentage, college	-.18	-.89	36	30-49%
Home support				
Study aids	-.21	-.82	56	3 or more
Mothers aspirations	.12	-1.32	65	4-year college

---

[1] Moment refers to the extent to which a subgroup may have contributed to the total decline in comparison to the other subgroups of that variable.

Table 7-6

Population Shift Effect, Subgroup Mean Change Effect, and Change in Moment[1] of Grouping Variables by IRT Mathematics Score

Variables	Population Shift	Group Mean Change	Largest Change in Moment (percent)	Subgroup With Largest Change in Moment
Demographic				
Sex	-.04	-.83	55	Male
SES	-.11	-.81	39	Middle
Race/ethnicity	-.34	-.81	74	White students
Geographical region	-.08	-.91	59	South
Community type	-.07	-1.09	51	Suburban
Student behaviors				
Curriculum	-.53	-.45	51	Vocational, general
Hours of homework	-.25	-.59	99	Less than 5 hours
Educational plans	-.09	-2.21	38	College
Semesters, mathematics	.44	-1.73	91	4 or fewer
Semesters, science	.05	-1.10	101	4 or fewer
Semesters, language	-.13	-.90	72	3 or fewer
Athletic participation	.14	-1.15	58	Yes, participates
Attitude, academics	-.33	-.74	61	Disagree with more emphasis
School characteristics				
Public, nonpublic	.04	-1.15	97	Public
Projects used	-.11	-.89	68	Never, seldom
Essays used	-.02	-.99	56	Never, seldom
Teachers ed.	.16	-1.19	51	0-49% advanced
Percentage White	-.20	-.80	59	90-100%
Advanced placement	.22	-1.32	61	No advanced placement
Percentage, college	-.29	-.77	32	30-49%
Home support				
Study aids	-.34	-.68	50	2 or fewer
Mothers aspirations	.21	-1.48	73	4-year college

---

[1] Moment refers to the extent to which a subgroup may have contributed to the total decline in comparison to the other subgroups of that variable.

Table 7-7

Largest Contributors for All Three Tests

Subgroup	Apparent Reason
Middle SES	Largest category and equal decline
White students	Largest category and largest decline
Schools in South	Largest category in 1980 and largest decline in reading and mathematics
Suburban students	Largest category and equal decline
Vocational and general students	Large low-scoring group that increased in size
Students doing less than 5 hours homework	Increasingly large group with larger decline
Students disagreeing with more academics	High-scoring group declining in number and larger decline
Students taking fewer math courses	Overall increase in enrollments should have increased scores but "4 or fewer" group showed large score decline
Students taking fewer science courses	Same as mathematics
Students taking fewer foreign language courses	Increase in proportion of a low-scoring group
Students in public schools	Gain in proportion of high-scoring group (nonpublic students) should have increased scores but both public and nonpublic students declined
Students never or seldom doing projects or lab work	Increase in low-scoring group
Students in schools without Advanced Placement	Increase in schools offering AP should have increased scores but "No AP" group declined in scores

Table 7-7 (continued)

Subgroup	Apparent Reason
Largest Contributors for All Three Tests	
Students with mother's wanting them to attend 4-year colleges	Increase in proportion should have increased scores but large score decline for 4-year college group
Schools predominantly White	High-scoring group declining in number and showing larger score decline
Largest Contributors for Vocabulary and Reading Only	
Females	Larger decline for larger group (but declined less in math)
Students with more study aids in home	High-scoring group declining in proportion
Schools used essays often or frequently	High-scoring group declining in proportion (and in all tests the "Never or seldom" group declined more in score)
Teachers' education more advanced	Increase in proportion should have raised scores but students with more educated teachers declined more. Slight reversal in mathematics
Other Possibly Large Contributors	
Educational plans	Small decrease in proportion of high-scoring college-bound group and small increase in lower scoring junior college group (many 1980 subjects omitted this item in the base year survey)
Athletic participation	Vocabulary and Reading: Nonparticipants declined more. Math: Participants declined more
Percentage of graduates attending college	In general, gain in proportion of low-scoring schools with 30-49% attending college

In the first category of large groups there were the following:

Middle SES students

Suburban schools

Public schools

The results for these groups are of little interest. Of much more interest is the second category of groups that contributed to the score decline primarily because of a change in their proportional size from 1972 to 1980. This category includes:

Vocational and general students (increased greatly in number)

Students never or seldom doing projects or laboratory work (increased in number)

Students with more study aids in home (decreased in number)

Students planning college attendance (high-scoring group decreasing moderately in number)

Students in school with lower proportion attending college (lower scoring group increasing in number)

Students taking fewer foreign language courses (increased in number)

Students in predominantly White schools (high-scoring group decreasing in number)

The third category of large groups--some of which got larger--that exhibited large score declines includes:

Students doing less than 5 hours of homework each week

Students disagreeing that there should be more academic emphasis (but number of students wanting more academic emphasis increased in number)

Students taking fewer math courses

Students taking fewer science courses

White students (higher scoring group declining in number and also displaying larger declines)

Students in schools in the South

Students not taking Advanced Placement courses

Students in schools "never or seldom" using essays

Students with mothers wanting them to attend four-year colleges

Females (for vocabulary and reading only)

Males (for mathematics only)

Obviously, these observations suggest some general conclusions about the score decline, but we will withhold comment until after the results of the covariance analysis and the path analysis are presented.

In summary, score declines on all three tests were primarily the result of declines in subgroup mean scores, but, in some cases, population shifts contributed to or helped to resist these declines.

Score declines on all three tests were associated with population shifts in the curriculum, academic attitudes, study aids, and race/ethnicity variables. Population shifts associated with the semesters of mathematics, percentage of teachers with advanced degrees, availability of advanced placement courses, and the amount of education mothers wanted the students to obtain variables helped to resist score declines.

The largest changes in subgroup mean affecting all three tests were associated with the educational plans, semesters of mathematics, mother's educational aspirations for the student, and advanced placement variables. No variable had group mean changes which resisted score decline.

The subpopulations with the largest score changes on all three tests were White students, students doing less than five hours of homework a week, students taking four or fewer semesters of mathematics and of science, students who felt their schools should not have more academic emphasis, students in schools where projects/labs/essays were seldom or never used, students in schools 90 percent or more White and those which sent 50 to 69 percent of their students to college, students in schools that did not offer advanced placement courses, and students whose mothers wanted them to attend a four-year college.

CHAPTER VIII

PARTITIONING TEST SCORE CHANGES BY BLOCKS OF VARIABLES USING ANALYSIS OF COVARIANCE

Chapter VII describes the extent of the relationship between selected population and behavioral shifts to score decline. This type of analysis provides considerable detail about how classifying an individual on one or two variables at a time affects test score changes from 1972 to 1980. This procedure, however, does not lend itself to evaluating the impact of any one given variable or a set of variables while controlling for the effects of other numerous confounding variables. This section attempts to look at the relative impact of selected blocks of variables on the 1972-1980 mean score changes both before and after controlling for other confounding "blocks" of variables. The blocks differ with respect to whether they consist of variables that are: (1) responsive to educational policy (e.g., student behaviors and school characteristics), and/or (2) descriptive of either students, schools, or the home.

The four blocks of variables in this analysis include:

Demographics:	race, sex, family SES, region of the country and community type.
Student Behaviors and Attitudes:	amount of homework, athletic participation, study habits, plans for higher education, number of semesters in selected subject matter areas, and type of program, e.g., academic, vocational or general.
School Characteristics:	student self-reports yielded school means based on: condition of the buildings, library, quality of academic instruction, school reputation, teacher interest, amount of homework done, school's emphasis on academics, labs in courses, essays in courses, courses in subject matter areas, age of seniors, and ratings on employment counseling. School questionnaire data included percent of White teachers, percent of teachers with Master's or Ph.D., teacher turnover, dropout rate, percent of White students, percent of students in academic program, student-teacher ratio, availability of bilingual education, availability of advanced placement courses, school type, and size of senior class.
Home Educational Support System:	student self-report of parental influence on plans, father's educational level, mother's educational level, mother's educational plans for student, study aids available in the home.

Similar to the previous section we would like to examine the relative influence of each of the above blocks of variables on test score decline. However, unlike the previous analysis, we would also like to get a "gross" estimate of each block's influence while controlling for the remaining blocks. The procedure used here will be a "step down" analysis of covariance where the primary outcome is the difference between covariate adjusted means. For example, if when controlling for the demographic block alone one can significantly reduce the difference between the two cohort means (i.e., reduce the mean score decline), then one could reasonably argue that changes in demographic makeup of students between 1972 and 1980 may indeed be contributing to the score decline. In a sense, the estimated reduction in the spread between the 1972 and 1980 means following adjustment for differences in demographic makeup is an estimate of the maximum impact of demographics on score decline since the remaining covariate blocks are not being considered. In order to arrive at an estimate of the unique contributions of the demographic block to 1972 to 1980 mean test score changes, one first compares the spread between adjusted means when all blocks are controlled for (full model) and then subsequently recomputes the adjusted means when the one block of interest is removed from the full model yielding a reduced model. Assuming that the assumptions of the analysis of covariance (ANCOVA) are reasonably met, then the differences between the two spreads, i.e., the difference between the spread of the reduced model and that of the full model, is an estimate of the block of interest's relative influence on the observed cohort mean differences while controlling for the other blocks.

This procedure is similar to defining unique partitions of the predictable variance in commonality analysis, but since it estimates adjusted means, it partitions score differences rather than variances. This approach also gives an indication of the direction of influence of the covariate blocks. That is, some blocks might be characterized by variables that may help resist the drop in scores. That is, if the behavior included in the block had not changed in the direction that they did, the score decline would have been even greater.

Table 8-1 below presents estimates of the maximum potential contributions of each block to either the decline or resistance to the decline in each of the three test score areas. These estimates of the reduction in mean spreads are maximum potential contributions since each block is treated separately without controlling for the remaining blocks.

Inspection of Table 8-1 indicates that controlling separately for the school characteristic and student behavior blocks leads to the larger reduction in the spreads between the 1972 and 1980 means. This suggests that other things being constant, if student behaviors or school characteristics had not changed between 1972 and 1980, the decline would be considerably smaller. This finding is particularly true for school characteristics.

Table 8-1

Differences between 1972-80 Senior Test Score Means When Each Block Is Separately Held Constant

	Vocabulary		Reading		Math	
Observed Mean Decline (d)	.85		1.04		1.04	
Mean Decline or Increase after Adjusting for:						
	d^1	Change $(d-d^1)$	d^1	Change $(d-d^1)$	d^1	Change $(d-d^1)$
Demographics Only ...	.63	.22	.79	.25	.60	.44
Student Behaviors Only ...	.28	.57	.48	.56	.56	.48
School Characteristics Only ...	.21	.64	.24	.80	.23	.81
Home Support Only ...	1.06	-.21	1.31	-.27	1.45	-.41

Note: d^1 = Expected decline after adjusting only for changes in individual block of variables.

$d-d^1$ = Net change, i.e., that part of the mean decline due to an individual block while ignoring the effects of the remaining blocks.

For a block to have the potential to contribute to the score decline, it must consist of variables that are primarily positively (negatively) related to tested achievement also positively (negatively) related to a "dummy" coded indicator of whether an individual is a member of the 1972 senior cohort (coded "1") or a member of the 1980 senior cohort (coded "0"). Significant variables in the student behavior block regression equation that fit this pattern are reported below.

That is, changes from 1972 to 1980 in individual student school behaviors that contributed most to the score decline were:

- Taking less semesters of foreign language courses. This reduction was proportionately greater for females.
- Spending less hours on homework. This reduction was proportionately greater for females.
- Taking less semesters of science courses.
- Less likely to be in the academic curriculum.

Similarly, changes from 1972 to 1980 in individual school characteristics that contributed most to the score decline, were:

- An increase in the proportion of students rating the school as needing more academic emphasis.
- A decrease in school means with respect to homework done by students.
- A decrease in school means with respect to semesters of foreign language courses taken by students.
- An increase in schools with a high dropout rate.
- A decrease in school means with respect to laboratory courses taken by students.
- A decrease in students' rating of their school's reputation in the community.
- A decrease in students' rating of the quality of their academic instruction.
- A decrease in students' rating of the physical condition of their school buildings.

Significant variables in the demographic block regressions were being White and coming from the Northeast.

It is interesting to note that when variation in the home educational support block is held constant, the spread between the adjusted means increases. This finding is suggesting that if the home environment had not changed between 1972 and 1980 in a positive direction the declines would have been even greater. That is, the means on those variables in the home educational support block that were most highly correlated with achievement tended to go up from 1972 to 1980. Both parents' education and mother's educational plans for the child's education tended to increase from 1972 to 1980. Among the variables in this block, these three had the highest relationship with the achievement test scores.

Another way of looking at this approach to estimating the relative influence of blocks as either contributing or resisting score decline is to think of it as predicting achievement (e.g., vocabulary) from the variables within a block within each cohort using the pooled within group regression weights and then getting the 1972 and 1980 senior cohort means on the predicted scores. If the 1972 mean is higher than the 1980 mean and the variables that get the biggest positive weights in the regressions are positive student behaviors (e.g., in the student block) or positive school characteristics (in the school block), then it would appear that changes from 1972 to 1980 in student or school behaviors have contributed to the decline. If the predicted cohort means are in the opposite direction (i.e., 1980 higher than 1972), then we would expect this direction of change in behavior to resist any decline (e.g., the home support block). The covariance adjustment in Table 8-1 for the home educational support block suggests that if there had not been a change from 1972 to 1980 in the direction of increased home educational support, the decline would have been greater than the observed .85; more like 1.06.

As indicated above, the estimates of the relative contribution of each block to the decline (or to resisting the decline) are likely to be overstated unless one estimates the impact of a given block on the tested achievement while controlling for the remaining blocks.

Figure 8-1 presents an estimate of the relative contributions of each block to the decline while controlling for the remaining blocks. These estimates are simply the difference between the covariance adjusted means for the full model (all blocks as covariates) and that of the reduced model where one block has been removed. For example, the impact of the demographic block on the vocabulary score decline is estimated in the following way. The difference between adjusted means for the full model (all blocks as covariates) is subtracted from the difference between adjusted means for the reduced model. In the case of vocabulary we have the difference between adjusted means for the reduced model (.16) minus the difference between the adjusted means for the full model (.09) yielding .07 of a test score point as an estimate of the impact of changes in demographics on the score decline while controlling for the remaining blocks of variables. As in commonality analysis, the partitions of score point differences attributable to each block will not, in general, add up to the observed mean differences. The partitions by block do, however, give one a rough estimate of the relative importance of each block in contributing or resisting the score decline. A technical note describing the computations in more detail may be found in Appendix E. Appendix E also shows the structure coefficients indicating the important variables in each block.

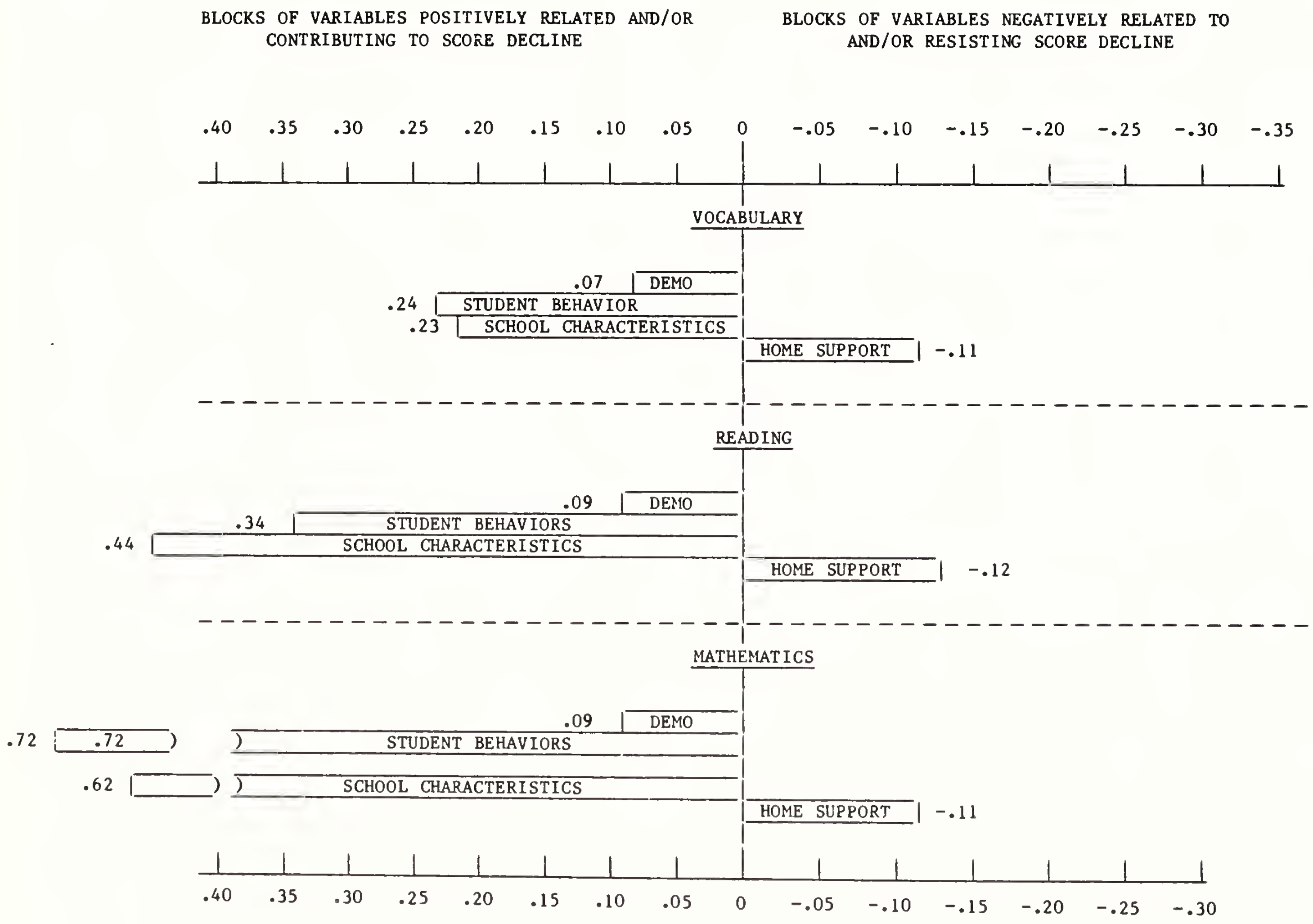
The negative numbers associated with the home educational support system suggest that changes in variables in this block from 1972 to 1980 are in the direction of resisting score decline. This effect is relatively constant for all three tested achievement areas. The effect of changes in demographics from 1972 to 1980 have a consistent but relatively small impact in the direction of contributing to the score decline. Compared to changes in demographics and home educational support systems, changes from 1972 to 1980 in student and school characteristics have considerable impact in the direction of contributing to score decline.

This is true for reading and even more so for mathematics. In the case of mathematics, school characteristics and student behaviors are roughly seven to eight times more important than are changes in demographics with respect to contributing to score decline.

The relatively greater impact of student academic behavior and school characteristics on reading and especially mathematics is consistent

Figure 8-1

ADJUSTED MEAN DIFFERENCES FOR 1972-1980 TEST SCORES BY SELECTED BLOCKS OF EXPLANATORY VARIABLES



with what one would expect since gains or losses in these achievement areas would appear to be more sensitive to formal schooling.

While the above approach does yield rough but seemingly not unreasonable estimates of the relatively unique impact (and direction) of logical blocks of explanatory variables on 1972-1980 achievement changes, one must be cautious when interpreting the adjusted mean differences from any analysis of covariance in a nonexperimental situation. In particular, the assumptions of homogeneity of achievement covariate regressions probably do not hold, but it is expected that the main effects are large compared to the interactions. The next section which attempts to estimate and compare path models underlying achievement separately for 1972 and 1980 suggests that indeed there is some interaction between 1972 and 1980 and achievement-covariate relationships. These interactions are, however, generally small compared to the main effect and are always ordinal.

Another potential pitfall of the above methodology is the reliance on differences between adjusted means for interpretation of the relative sizes of the effect associated with a particular block. The difference between adjusted means is, of course, simply estimated by a partial raw score regression coefficient while holding constant numerous other variables in the system. All the problems of colinearities and the accompanying instability in the particular regression coefficient defining the adjusted means are also present. It is hoped that these types of problems are somewhat alleviated by the large sample size within each cohort.

CHAPTER IX

PATH ANALYSIS

The earlier section dealing with population shifts and mean changes within populations indicated that while the score decline cut across almost all groups of individuals, it appeared to be larger for White individuals in vocabulary, reading, and mathematics and females in vocabulary and reading. In an effort to see if race, sex and SES subgroups appeared to go through a somewhat different educational process in 1980 from their counterparts in 1972, three path models were constructed--one for each outcome variable. The three final outcome variables were vocabulary, reading, and mathematics scores. The three path models shared the same assumed causal chain but differed in the final dependent variable and one intermediate educational process variable. The intermediate process variable that was varied depending on the outcome was "number of semesters of language courses," which was used for the vocabulary and reading outcomes and "number of semesters of mathematics," which served the same role for the mathematics achievement outcome.

Figure 9-1 presents the path model that was assumed to underly the process in vocabulary achievement. The path models investigate how membership in those groups showing the greatest declines may differ in selected educational processes from those who showed lesser declines. It also yields the net effect of being in these groups on the achievement outcomes. That is, the effect of group membership on the achievement outcomes while controlling for all variables in the model. The finding of a diminishing effect on achievement outcomes in 1980 compared to 1972 for minority, SES, or sex group membership could point to possible change in the educational process towards emphasizing equality of educational outcomes.

The path coefficients or regression weights in Figures 9-1 - 9-3 are raw score regression weights since the model compares path coefficients across populations. The usual standardized path coefficients would be inappropriate for cross population comparisons because of their sensitivity to sample differences in variability. The 1972 and 1980 estimates of the effect of the variable at the tail of the arrow on the variable at the head of the arrow are shown as pairs with the 1980 estimates in parentheses. Arrows are only present in the Figure if either the 1972 or 1980 coefficient or both are at least twice their standard errors. Where the comparable 1972 and 1980 path coefficients differ by as much as four pooled standard errors an asterisk is placed along side. This conservative approach reduces the possibility of presenting many relatively trivial effects and is consistent with the average design effects for the 72 and 80 cohorts.

Two of the intermediate dependent variables, attendance at a private school and membership in the academic curriculum, are dichotomous and as a result do not meet the assumptions of ordinary least squares (OLS)

Figure 9-1. Hypothesized Path Model to Explain Vocabulary Achievement

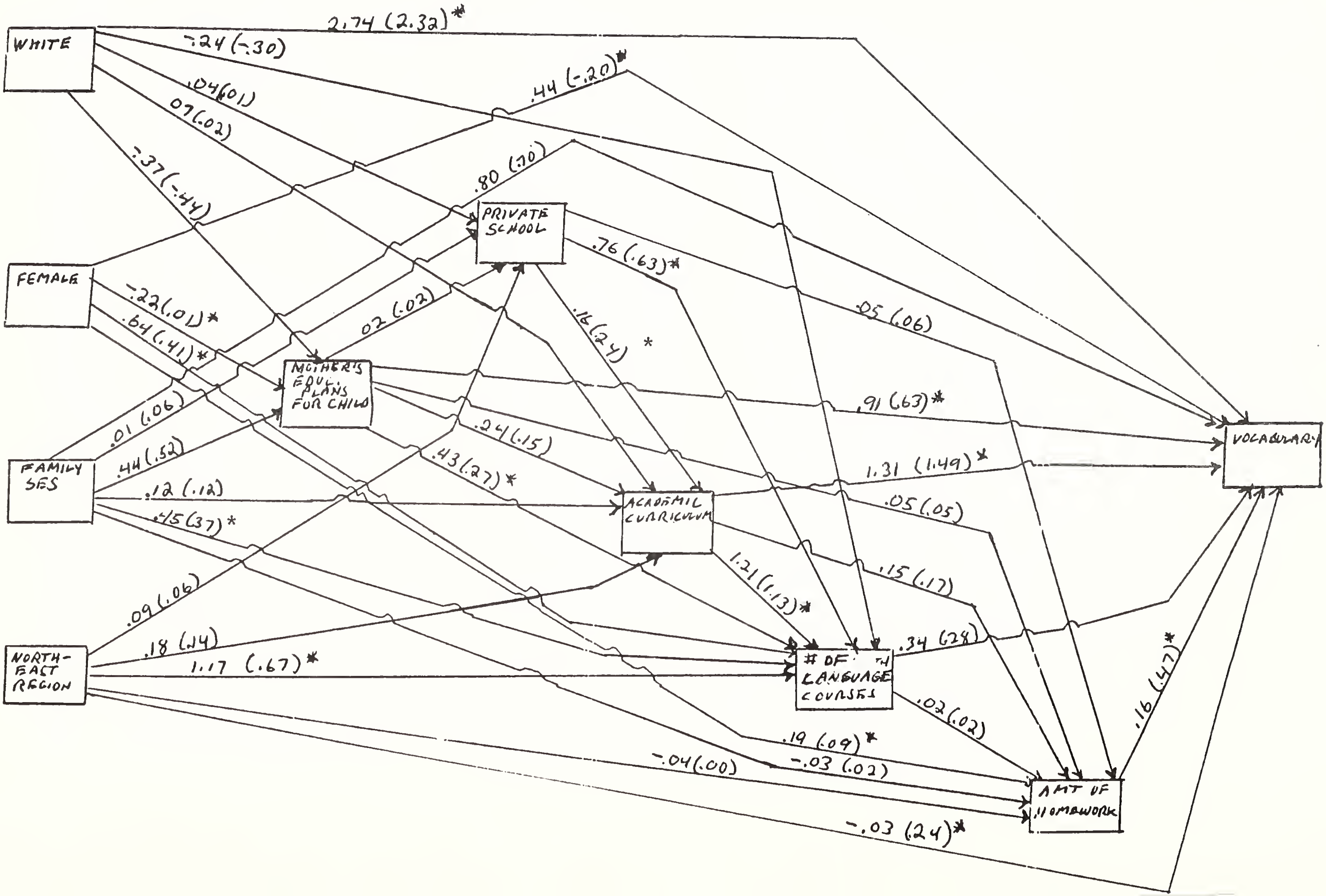


Figure 9-2. Hypothesized Path Model to Explain Reading Achievement

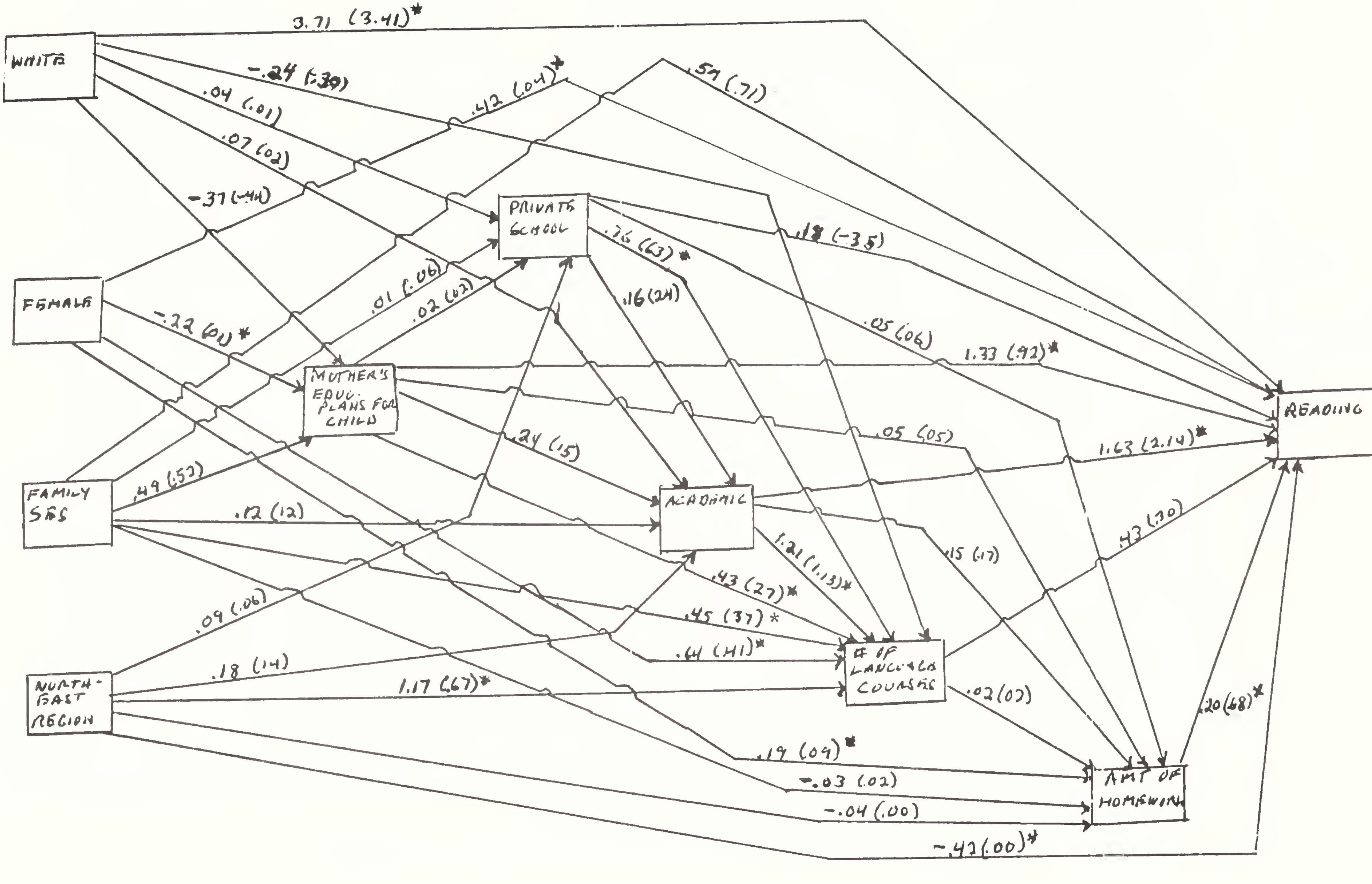
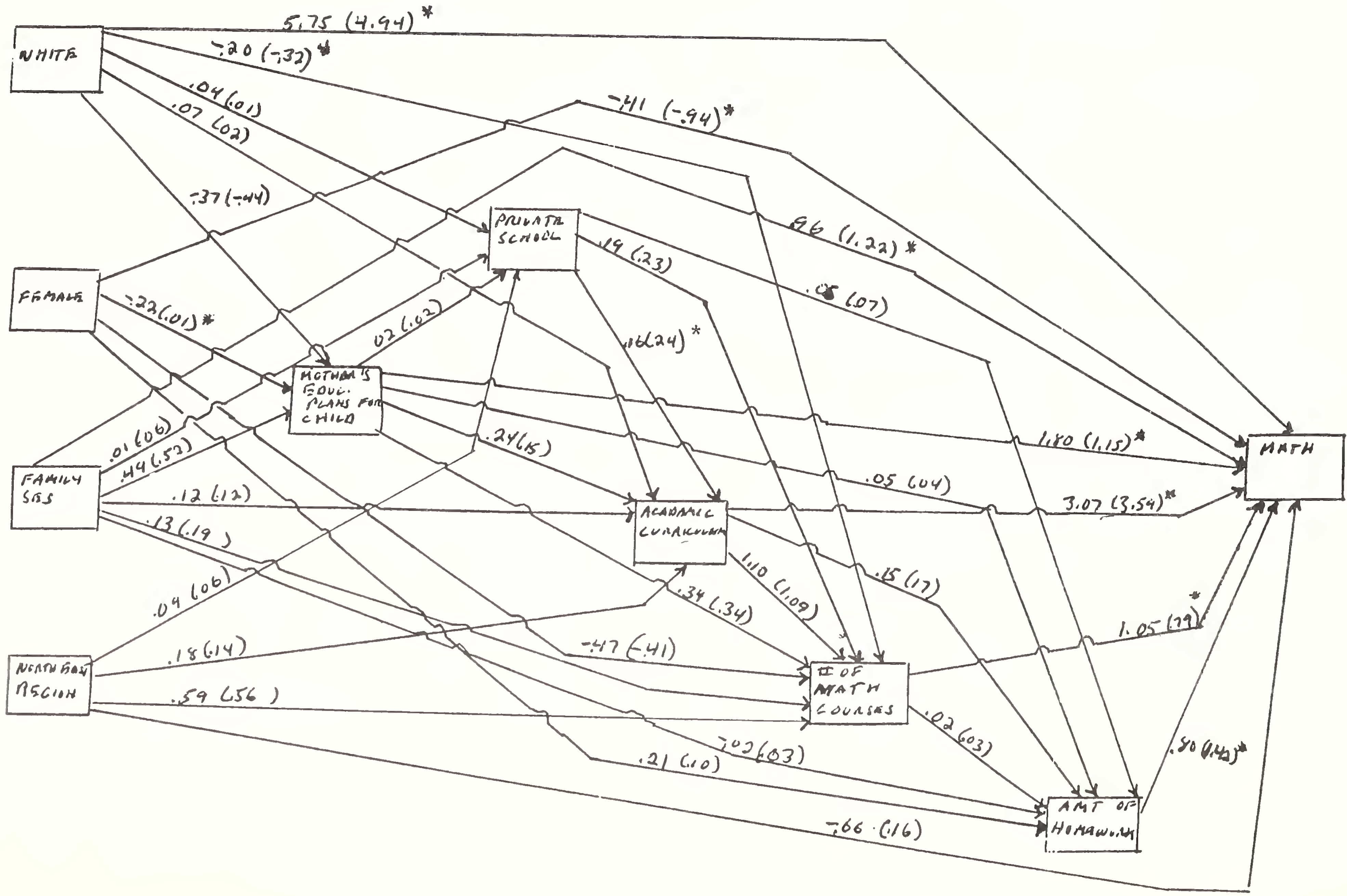


Figure 9-3: Hypothesized Path Model to Explain Mathematics Achievement



estimation. Estimates based on ordinary least squares were used, however, since the computer programs available for the preferred technique (logistic regression) do not readily handle either missing data or sample weights. It has been our experience that in the case of large samples the OLS estimates of effect size are reasonably close to those of the logistic regression and the potential for bias lies in the tendency of OLS to underestimate the size of the coefficient's standard error. With that in mind we will be cautious in our interpretations of effect sizes of variables assumed to be explanatory variables for these two outcomes.

A. DETERMINANTS OF MOTHERS' EDUCATIONAL ASPIRATION FOR THE CHILDREN

Mothers' educational aspiration was predicted reasonably well by the demographic explanatory variables. The multiple correlation was .42 in 1972 and .39 in 1980. Inspection of Figure 1 indicates that after controlling for SES, mothers of non-White students tend to have considerably more ambitious educational plans for their daughter or son. In addition, there is a suggestion that this differential aspiration in favor of non-Whites increases from 1972 to 1980. In 1972 mothers tended to have significantly higher educational aspirations for their sons than for their daughters as indicated by the sign and relative size of the path coefficients. However, in 1980 the mothers' aspirations were essentially independent of the child's sex. The asterisk indicates that the 1972 and 1980 path coefficients are at least four standard errors apart for the sex group effect on mothers' aspirations. The relationship of SES to mothers' plans remained high but relatively stable from 1972 to 1980.

B. DETERMINANTS OF PRIVATE SCHOOL ATTENDANCE

The hypothesized model was unable to predict with any accurancy whether or not the student attended a private school. That is the multiple R was .20 in HS&B and .18 in NLS. The inability to predict attendance at a private school was probably due to the fact that private schools were a relatively heterogeneous lot, being a mixture of both private non-Catholic and Catholic schools.

C. CHOOSING THE ACADEMIC CURRICULUM

Choosing the academic curriculum was predicted reasonably well, R = .47 and .52 in HS&B and NLS cohorts, respectively. Explanatory variables that were positively related to selecting the academic curriculum were attendance at a private school, mothers' educational plans for the offspring, family SES and living in the Northeast region of the country. There is some indication that being in a private school had a stronger relationship with being in the academic curriculum in 1980 than it did in 1972. This is probably not the whole story, however, since the earlier analysis of population shifts suggest that there were proportionally bigger shifts of students from academic to vocational and general curricula in the public schools than in the private schools during this period. It is interesting to note that sex group membership was independent of choice of the academic curriculum in both 1972 and 1980. This is indicated by the lack of arrows from sex group membership to curriculum choice.

D. NUMBER OF SEMESTERS OF LANGUAGE COURSES

This process variable was chosen for inclusion in the model because of its potential relationship with achievement in both verbal skills--vocabulary and reading. In addition, because of its potential critical nature in the development of the verbal skills, it might help to explain the greater vocabulary score decline that was found for females than for males. The multiple correlation between the hypothesized explanatory variables and semesters of language courses was .57 in 1972 and .48 in 1980. The path coefficients defining female vs. male contrasts seem to support the notion that females were less likely in 1980 than in 1972 to be taking language courses. The female-male contrast path coefficient indicates that on the average, females still take more semesters of language courses than do males, but the difference appears to be diminishing. This finding may reflect a new awareness among female students and a "turning away" from traditional female curricula (e.g., language and literature) to the more male-oriented courses.

There is an indication that SES's relationship with number of language courses is somewhat more attenuated in 1980 than in 1972. Similarly, students from the Northeast region showed a considerable drop in their relative advantage over the other regions in their study of language. Significant drops between 1972 and 1980 in the relationship between being in the academic curriculum and taking language courses also occurred. Mothers' educational plans also had a smaller albeit still positive effect on the taking of language courses.

E. AMOUNT OF HOMEWORK

The amount of homework done reported by the student was only modestly explained by the model. The multiple correlation was .36 and .32 in the HS&B and NLS cohorts, respectively. With the exception of the female-male contrast, the remaining explanatory variables had stable, although relatively weak relationships with the amount of homework they reported doing. Consistent with the pattern of some of the earlier reported female-male contrasts, the females advantage over males with respect to the amount of homework done decreased significantly from 1972 to 1980. It would appear that the greater observed score decline among women as compared to men is consistent with the school behavior patterns highlighted in the path models.

F. SEMESTERS OF MATHEMATICS COURSES

The more relevant academic process variable for mathematics achievement is number of semesters of mathematics courses. Thus, in Figure 9-3 where mathematics achievement is the primary outcome, we have replaced number of language courses with number of mathematics courses.

The non-White students, compared to Whites, increased the differential in their favor with respect to number of semesters of mathematics when going from 1972 to 1980. Although women are still taking significantly less math courses than men, they showed a slight decrease in this differential when going from 1972 to 1980. All the other explanatory variables had relatively stable relationships with this outcome when going from 1972 to 1980.

G. DETERMINANTS OF TESTED ACHIEVEMENT

Because the contrasts between what are the important determinants of achievement in each test are of considerable interest, all three achievement outcomes and their determinants will be discussed together. Table 9-1 summarizes the direct effects of major explanatory variables on test outcomes.

Inspection of the determinants of vocabulary, reading, and mathematics achievement (Figure 9-1) shows a significant reduction in the gap between White and non-White achievement, while controlling for all other variables in the model as one goes from 1972 to 1980. This is consistent with other recent findings (Jones, 1984). It is also consistent with the direction of changes in other educational process variables. While the 1972 to 1980 measured changes in the educational behavior pattern of the non-Whites are not statistically significant by the four standard error criteria, their pattern taken as a whole is certainly consistent with the finding that the White/non-White achievement gap is narrowing. For example, the differential in favor of Whites decreased with respect to attendance at private schools (differences in favor of whites went from 4 percent in 1972 to 1 percent in 1980) when controlling for other confounding variables. The path coefficient indicates that the gap in favor of non-Whites with respect to mothers' educational plans increased in 1980. Conversely, the gap in favor of Whites with respect to the selection of academic curriculum also was reduced by 1980. The non-whites also increased the differential in their favor with respect to the number of language courses taken as one goes from 1972 to 1980. This increase in differential is even more notable in the case of self-report of the number of mathematics courses (see Figure 9-3). There was, however, no difference in the amount of homework reported by Whites and non-Whites. One should keep in mind that these changes in a positive direction, both in intermediate and final outcomes, are (path coefficients) in a model where other demographic variables are being held constant. That is, when we hold constant critical variables such as SES we notice that non-Whites are more likely than Whites to change their educational behavior in a direction to resist score decline.

An important determinant of achievement in all three areas was being in the academic curriculum. That is, when controlling for all other variables in the model being in the academic curriculum leads to the greatest increment (with the exception of race) in one's tested achievement. In addition, the impact of being in the academic curriculum increases as one goes from 1972 to 1980. Membership in the academic curriculum not only has both this large direct effect on achievement, but

Table 9-1

1972-80 Contrasts of the Direct Effects of Major Explanatory Variables on Test Outcomes

	Vocabulary		Reading		Mathematics	
	1972	1980	1972	1980	1972	1980
Race/Ethnicity (White = "1" Others = "0")	2.74	(2.32)*	3.71	(3.41)*	5.75	(4.94)*
Curriculum (Academic = "1" Others = "0")	1.31	(1.49)*	1.63	(2.14)*	3.07	(3.54)*
Mother's Educational Plans for Child	.91	(.63)*	1.33	(.92)*	1.80	(1.15)*
SES	.80	(.70)	.59	(.71)*	.96	(1.22)*
Sex (Female = "1" Male = "0")	.44	(-.20)*	.42	(.04)*	-.41	(-.94)*
Number of Related Courses	.34	(.28)	.43	(.30)	1.05	(.79)*
Amount of Homework ("1" = 5 or more hours per week, "0" = less than 5 hours per week)	.16	(.47)*	.20	(.68)*	.80	(1.42)*

*Indicates that the 1972 to 1980 comparison of direct effects differ by four pooled standard errors.

also has an indirect effect on achievement in that those students in the academic curriculum take more critical subject matter courses (math and languages) and do more homework both of which, in turn, have significant impacts on all three tested achievement areas.

Achievement mean score differences between males and females also changed between 1972 and 1980. Accompanying these female-male changes in achievement were some sex group-related changes in their school-related behavior. That is, while females showed greater decline than did males in both the vocabulary and reading achievement areas, they also showed a greater decline than males in the amount of homework that they reported doing. Females showed a proportionately greater decline than males in the number of language courses taken. Curiously enough, the gap between males and females is somewhat reduced with respect to the number of mathematics courses taken as one goes from 1972 to 1980. This may reflect a general trend in that females appear to be moving from the historically more female-oriented courses (e.g., literature and languages) to the more male-oriented science and mathematics courses.

The male/female gap in mathematics achievement grew larger in 1980, however, even after controlling for the number of courses taken. While females report taking more courses, the data do not allow one to determine the level and/ or quality of these courses. It may be that females are either enrolling in the lower level mathematics courses and/or are taking the more occupationally-related math courses. It also may be partly artifactual in that coursework was based on student responses in 1980 and the Survey Administrator's Report in 1972. As indicated earlier, Fetters et al. (1984) has shown that students tend to over-report their coursework.

The fact that the path coefficient from number of semesters of mathematics courses to mathematics achievement shows a significantly smaller effect in 1980 suggests that while students may be taking more math courses in 1980 than in 1972, they may be indeed nonacademically-oriented math courses and therefore the finding of less relationship with tested math achievement.

While the average amount of homework done decreased from 1972 to 1980, its impact on achievement increased. It would seem that those seniors in 1980 who were willing to put in the effort were more than repaid for their effort.

The question as to whether the educational system was more or less equitable in 1980 compared to 1972 is somewhwat of a "mixed bag." That is, while the White/non-White gap decreased one's family SES level had a bigger effect on tested achievement in both reading and mathematics achievement in 1980 compared to 1972. Also, other things being equal, the gap in tested achievement between students in the academic curriculum and those in the other curricula increased from

1972 to 1980 in all three basic skills areas. This increase in the gap is particularly noteworthy in mathematics and reading which, in turn, are more likely to be sensitive to formal educational training. Are those individuals in vocational and general programs in 1980 receiving either less or inferior coursework in the basic skills areas than they did in 1972? If so, then the 1972-1980 population shift from academic to vocational and general curricula has very serious consequences with respect to allowing young adults to achieve their full potential in reading and computation. Another possibility is that the marginal ability students have a greater likelihood of being in the general and vocational programs in 1980 than in 1972.

One other curious result in the path analysis is that mothers' educational plans for the child are less related in 1980 than in 1972 to the normal consequences, e.g., being in the academic curriculum, number of language courses, and tested achievement in all three basic skills areas. It may be that mothers in 1980 are less likely to view the traditional academic "paths" as necessary for continuing on in higher education. Part of this may reflect the fact that post-high school educational institutions, in particular junior colleges, provide an increasingly greater array of non-academic curriculum choices. Similarly, the course requirements of many four-year colleges may have "softened." It also may reflect the general economic climate and consequently the view that the college graduate who isn't trained in specific job relevant skills may be in less demand.

CHAPTER X

SUMMARY AND POLICY IMPLICATIONS

In 1983, eight major national studies reported on the status of public education in the United States. These reports sounded a common theme: The American educational system is in trouble. The major evidence cited in support of this claim was that academic achievement, as measured by performance on the College Board's Scholastic Aptitude Tests and the National Assessment of Educational Progress, had declined. This situation was attributed to demographic changes, lower standards, lower expectations for students, a less rigorous curriculum, and the poor academic preparation of new teachers.

This study documented a similar decline in the academic achievement of high school seniors between 1972 and 1980. It found, however, that the major factor contributing to changes in the vocabulary, reading and mathematics test scores of these students was a decreased academic emphasis in the educational process. Shifts in population demographics from 1972-1980 played a minor role in explaining test score decline.

A. SUMMARY OF STUDY FINDINGS

The study findings show that there were significant changes in test scores, in high schools, and in student behavior. They also show that these changes were interrelated.

1. Test Score Change

There were declines on all three achievement tests between 1972 and 1980. The largest declines occurred in vocabulary and reading. The average senior in 1980 (a student at the 50th percentile in 1980 in vocabulary and reading achievement) would rank at about the 41st percentile among the 1972 seniors in both vocabulary and reading. Similarly, a 1980 senior with average mathematics achievement in 1980 would be at the 45th percentile when compared with the 1972 seniors. When these changes are measured in standard deviation units, the declines are .22 for Vocabulary, .21 for Reading, and .14 for Mathematics, indicating a greater decline in verbal than in quantitative skills.

a. Vocabulary. Females showed a greater decline than males on the Vocabulary test. Whites showed greater declines than Blacks and Mexican-Americans, but these comparisons may be confounded by test score floor effects. The decline for Whites was relatively pervasive, cutting across SES levels, geographic regions, curriculum type, and school type (public vs. Catholic).

b. Reading. The decline in Reading test scores tended to be somewhat more consistent across subpopulations than the Vocabulary test scores. Declines were relatively consistent across sex, SES, curriculum type, and school type, but Whites showed a greater decline than Blacks or Mexican-Americans. The Reading test score declines were found primarily among students who reported doing less than five hours of homework per week.

c. Mathematics. The decline in Mathematics test scores was slightly larger for males than for females and larger for Whites than for other racial/ethnic groups. Blacks showed a small, but not statistically significant, increase in Mathematics test scores. The Mathematics test score declines were found primarily among students who reported doing less than five hours of homework per week. Females and Blacks who reported doing more than five hours of homework per week showed significant increases. The largest score decline was among male students who took four or fewer semesters of mathematics and/or science.

d. Comparison with SAT Score Decline. SAT scores for men and women declined in a somewhat similar pattern in the same time period. As shown in Table 10-1 below, men had a slight lead in SAT verbal scores (454 vs. 452) and a large lead in SAT math scores (505 vs. 461) in 1972. Between 1972 and 1980, the women declined somewhat more than the men on both scales, increasing the discrepancy between men and women.

Table 10-1

SAT Test Score Changes, 1972-1980

	Verbal				Mathematics			
	1972	1980	Diff.	Change in S.D. Units	1972	1980	Diff.	Change in S.D. Units
Male	454	428	-26	-.23	505	491	-14	-.12
Female	452	420	-32	-.29	461	443	-18	-.17

2. Changes in the Characteristics of High School Seniors and Their Schools

There were significant changes from 1972-1980 in the characteristics of high school seniors, their homes and families, the schools they attended, and their attitudes and behaviors.

- The 1980 seniors were more likely to be members of a minority group and from the South than were the 1972 seniors. Females constituted a slightly larger proportion of the 1980 seniors than the 1972 seniors.

- There was a significant increase in the mean level of parental education from 1972 to 1980, but there was relatively little difference in fathers' occupations in 1972 and 1980.

- Mothers of 1980 senior women had higher educational aspirations for their daughters than did the mothers of 1972 senior women. Aspirations for senior men remained unchanged.
- There were fewer study aids in the homes of 1980 seniors than in the homes of 1972 seniors.
- More seniors were enrolled in the general or vocational curriculum in 1980 than in 1972, while fewer students were enrolled in the academic curriculum. In addition, seniors took fewer semesters of social studies, science and foreign languages in 1980 than in 1972, but more semesters of mathematics.
- Seniors reported doing less homework in 1980 than in 1972. The estimated decline was from approximately 4.55 hours of homework per week in 1972 to 4.05 hours in 1980.
- The attitudes and values of high school seniors also changed between 1972 and 1980. Interest in correcting social and economic inequities declined, while interest in making money and in job success increased. Students became more self-confident between 1972 and 1980 but less sure of their ability to control the course of their own lives.
- There were also increases, between 1972 and 1980, in the number of schools with high dropout rates and in the proportion of schools reporting a majority of their students in the general curriculum. Students' ratings of the quality of their schools' facilities, academic instruction and reputation dropped.

3. Factors Affecting Test Score Change

A "step down" analysis of covariance was used to estimate how 1972-1980 changes in population demographics, student behavior, school characteristics and home educational support systems separately affected the average score decline. Path analysis was employed to ascertain if certain subpopulations, which were characterized by larger declines, might have experienced different educational processes in 1972 than their counterparts in 1980.

The results show that:

- Shifts in population demographics from 1972 to 1980 were a minor factor contributing to the score decline.
- Changes from 1972 to 1980 in student school behaviors and in school characteristics played the major roles in the score decline. This finding was consistent across all three tested achievement areas.

- Student's school behaviors and school policies contributed equally to the vocabulary score decline.
- School characteristics played a somewhat larger role than did students' school behaviors in the reading score decline.
- Conversely, students' school behaviors played a slightly greater role than did school characteristics in the mathematics score decline.
- Changes from 1972 to 1980 in the home educational support system were in a direction that would resist score decline. However, the magnitude of the effects of changes in home educational support were small compared to student and school characteristics.

Changes from 1972 to 1980 at both the school level and student level that seem to have contributed most to the decline were: (1) a greater likelihood of being in the general or vocational curriculum rather than the academic curriculum, (2) a drop in the frequency with which students report taking "traditional" college preparation core courses such as foreign languages, science and/or courses requiring laboratory work, (3) a decrease in the amount of homework done, and (4) an increasing dissatisfaction among the students with the lack of emphasis on academics in the schools.

B. POLICY IMPLICATIONS

The national reports issued last year contained a wide range of recommendations designed to strengthen the educational process. They addressed school curriculum, programs for special populations, college entrance requirements, performance standards for students, training of teachers, administrative leadership, fiscal support, and the proper role of local, state and federal governments. Many states have responded to these recommendations by raising high school graduation requirements and/or college admission standards, requiring more testing of students, and changing policies on the preparation and licensing of teachers. The findings of this study support the appropriateness of many of these policy recommendations.

1. Curriculum

The National Commission on Excellence in Education recommended that students devote significantly more time to the "New Basics"--English, mathematics, science, social studies, computer sciences and, for the college-bound, a foreign language. This study suggests that more coursework in science, foreign languages and mathematics contributes to higher scores on the kinds of vocabulary, reading and mathematics skills measured by the NLS/HS&B test battery. However, policymakers must be sensitive to differences in course-taking behavior among curricula. The course-taking patterns of students in the academic curriculum showed little change between 1972 and 1980. But a significant number of students shifted into the general and vocational curricula, where they took fewer New Basics than their academic counterparts. Therefore, we suggest that schools increase the required number of courses in the New Basics for non-academic students. However, these courses should not be provided at the expense of remedial work in reading and mathematics when it is needed. In addition, schools should provide more frequent opportunities for students to write and more opportunities for students to participate in laboratory courses.

2. Course Content

Several commissions recommended that the content of textbooks and instructional materials be made more academically demanding. Since students in all curricular areas in this study were critical of the lack of academic emphasis in their coursework and of the quality of their academic instruction, we suggest that course content and instructional methods be reviewed and upgraded, as necessary, to insure more rigorous content.

3. Homework

Several reports recommended that homework be required regularly of all students, and many school districts have implemented homework policies. Students in this study reported doing less homework in 1980 than in 1972, but students in the general and vocational curricula did less homework and showed greater test score declines than those in the academic program. Since there was a strong positive relationship between homework and achievement in all three tested areas, we concur that appropriate amounts of homework be assigned in all courses.

4. Programs for Special Populations

Many of the national studies stated that the Federal government, in cooperation with the states and local school districts, should continue to provide special programs for educationally and economically disadvantaged students, the handicapped, and language minority students. This recommendation is critical since a growing body of data have documented the relative improvement in achievement of Blacks and other disadvantaged students over the last decade. For example, test score declines for Blacks in this study were considerably below those of White students. This was particularly true of low SES Black students, the most likely beneficiaries of federal and state compensatory education programs. Similar findings were reported by the National Assessment of Educational Progress in an analysis of changes in the reading and mathematics achievement of 17-year-old students during the 1970s.

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APPENDIX A

Items Common to the 1972 and 1980 Student Questionnaires

APPENDIX A

Table 1

ITEMS COMMON TO THE 1972 AND 1980 STUDENT QUESTIONNAIRES

VAR#	LABEL	DESCRIPTION	RESPONSE CODES (CONVERTED)	NLS	HSB 80
2	HSGRADES	GRADES IN HIGH SCHOOL	8=MOSTLY A'S; 7=A/B; 6=MOST B; 5=B/C; 4=MOST C; 3=C/D; 2=D; 1=BELOW D; MISSING=BLANK	229 BQ5	85 BB007
3	HOMEWORK	TIME/WEEK SPENT ON HOMEWORK	1=0-5 HRS.; 2=5-10 HRS; 3=10+ HRS; MISSING=BLANK	235 BQ7	128 BB015
		HAVE YOU PARTICIPATED IN THE FOLLOWING ACTIVITIES			
4	PART-ATH	PARTICIPATE IN ATHLETICS	0=NO; 1=YES: ACTIVE OR LEADER	241 BQ10A	163 EB032A 164 BB032B
5	PART-CHR	PARTICIPATE IN CHEERLEADING	0=NO; 1=YES: ACTIVE OR LEADER	242 BQ10B	165 BB032C
6	PART-DEB	PARTICIPATE IN DEBATING, MUSIC	0=NO; 1=YES: ACTIVE OR LEADER	243 BQ10C	166 BB032D 167 BB032E 168 BB032F
7	PART-HOB	PARTICIPATE IN HOBBY CLUBS	0=NO; 1=YES: ACTIVE OR LEADER	244 BQ10D	169 BB032G
8	PART-HON	PARTICIPATE IN HONORARY CLUBS	0=NO; 1=YES: ACTIVE OR LEADER	245 BQ10E	170 EB032H
9	PART-NWS	PARTICIPATE IN NEWSPAPER, YEARBOOK	0=NO; 1=YES: ACTIVE OR LEADER	246 BQ10F	171 EB032I
10	PART-SBJ	PARTICIPATE IN SUBJECT MATTER CLUBS	0=NO; 1=YES: ACTIVE OR LEADER	247 BQ10G	172 BB032J
11	PART-GOV	PARTICIPATE IN STUDENT GOVERNMENT	0=NO; 1=YES: ACTIVE OR LEADER	248 BQ10H	173 EB032K
12	PART-VOC	PARTICIPATE IN VOC ED CLUBS	0=NO; 1100S: ACTIVE OR LEADER	249 BQ10I	174 BB032L
		HOW MUCH HAS EACH OF THE FOLLOWING INFLUENCED YOUR PLANS FOR AFTER H.S.			
13	INF-PRNT	INFLUENCE ON PLANS-PARENTS	1=NO; 2=SOMEWHAT; 3=GREAT DEAL	261 BQ14A	233 EB049A 234 EB049B
15	INF-COUN	INFLUENCE ON PLANS-GUIDANCE COUNSELOR	1=NO; 2=SOMEWHAT; 3=GREAT DEAL	263 BQ14C	235 EB049C
16	INF-TCHR	INFLUENCE ON PLANS-TEACHER	1=NO; 2=SOMEWHAT; 3=GREAT DEAL	264 BQ14D	236 EB049D
21	INF-FRND	INFLUENCE ON PLANS-FRIENDS & RELATIVES	1=NO; 2=SOMEWHAT; 3=GREAT DEAL	269 BQ14I X(14) 262 BQ14B	237 EB049E

STUDENT RATINGS OF SCHOOL

23	BUILDING	STU/SCHOOL RATING: CONDITION OF BUILDING	1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK)	291	BQ18A	283	BB053A
27	LIBRARY	STU/SCHOOL RATING: LIBRARY	1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK)	295	BQ18E	284	BB053B
28	AC INSTR	STU/SCHOOL RATING: ACADEMIC INSTRUCTION	1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK)	296	BQ18F	285	BB053C
30	REPUTATN	STU/SCHOOL RATING: REPUTATION IN COMMUNITY	1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK)	298	BQ18H	286	BB053D
32	TCHR INT	STU/SCH RATING: TEACHER INTEREST IN STUDENTS	1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK)	300	BQ18J	287	BB053E

HOW IMPORTANT IS EACH OF THE FOLLOWING TO YOU IN YOUR LIFE

33	IMP-WK S	IMPORTANCE OF SUCCESS IN WORK	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	313	BQ20A	294	BB057A
34	IMP-MARR	IMPORTANCE OF MARRIAGE, FAMILY LIFE	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	314	BQ20B	295	BB057B
35	IMP-MONY	IMPORTANCE OF MONEY	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	315	BQ20C	296	BB057C
36	IMP-FRNO	IMPORTANCE OF STRONG FRIENDSHIPS	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	316	BQ200	297	BB0570
37	IMP-STWK	IMPORTANCE OF STEADY WORK	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	317	BQ20E	298	BB057E
38	IMP-LEAO	IMPORTANCE OF BEING COMMUNITY LEADER	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	31B	BQ20F	299	BB057F
39	IMP-OPPC	IMPORTANCE OF OPPORTUNITIES FOR MY CHILDREN	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	319	BQ20G	300	BB057G
40	IMP-CLOS	IMPORTANCE OF LIVING CLOSE TO RELATIVES	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	320	BQ20H	301	BB057H
41	IMP-AWAY	IMPORTANCE OF GETTING AWAY FROM THIS AREA	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	321	BQ20I	302	BB057I
42	IMP-SOCL	IMPORTANCE OF WORK TO CORRECT SOCIAL PROBLEMS	1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP	322	BQ20J	303	BB057J

FEELINGS ABOUT SELF: SCALE REVERSED TO MAKE HIGHER NUMBER CORRESPOND TO POSITIVE FEELING

43	POS ATT	FEELINGS ABOUT SELF: POSITIVE ATTITUDE	REVERSED SCALE: 1=DISAGREE STRONGLY; 2=DISAGREE; 3=AGREE; 4=AGREE STRONGLY	323	BQ21A	306	BB058A
44	GOODLUCK	FEELINGS ABOUT SELF: LUCK MOST IMPORTANT	ORIGINAL SCALE: 1=AGREE STRONGLY; 2=AGREE;3=DISAGREE;4=DISAGREE STRONGLY	324	BQ21B	307	BB058B
45	WORTH	FEELINGS ABOUT SELF: WORTH EQUAL TO OTHERS	REVERSED SCALE: 1=DISAG. 4=AGREE STR	325	BQ21C	30B	BB058C
46	DO WELL	FEELINGS ABOUT SELF: CAN DO THINGS WELL	REVERSED SCALE: 1=DISAG. 4=AGREE STR	326	BQ210	309	BB0580
47	GETAHEAD	FEELINGS ABOUT SELF: CAN'T GET AHEAD	ORIGINAL SCALE: 1=AGREE; 4=DISAGR STR	327	BQ21E	310	BB058E
48	PLANNING	FEELINGS ABOUT SELF: PLANS DON'T WORK OUT	ORIGINAL SCALE: 1=AGREE; 4=DISAGR STR	328	BQ21F	311	BB05BF
49	ACCEPT	FEELINGS ABOUT SELF: ACCEPT COND. IN LIFE	ORIGINAL SCALE: 1=AGREE; 4=DISAGR STR	329	BQ21G	312	BB05BG
50	SATISF	FEELINGS ABOUT SELF: SATISFIED WITH MYSELF	REVERSED SCALE: 1=DISAG. 4=AGREE STR	330	BQ21H	313	BB058H

69	WK PLAN	WORK STUDENT WANTS TO DO (* PLEASE NOTE: SEE 119-121 FOR OCCUPATIONS RECODED TO DUNCAN SEI SCALE *)	1=CLERICAL; 2=CRAFTSMAN; 3=FARMER; 4=HOMEMAKER; 5=LABORER; 6=MANAGER; 7=MILITARY; 8=OPERATIVE; 9=PROFESSIONAL; 10=PROPRIETOR; 11=PROTECTIVE; 12=SALES; 13=SERVICE; 14=TECHNICAL	367 BQ25A	345 BB062
71	FATH OCC	FATHER'S OCCUPATION	1=CLERICAL; 2=CRAFTSMAN; 3=FARMER; 4=HOMEMAKER; 5=LABORER; 6=MANAGER; 7=MILITARY; 8=OPERATIVE; 9=PROFESSIONAL; 10=PROPRIETOR; 11=PROTECTIVE; 12=SALES; 13=SERVICE; 14=TECHNICAL	368 BQ25B	208 BB038
73	MOTH OCC	MOTHER'S OCCUPATION	1=CLERICAL; 2=CRAFTSMAN; 3=FARMER; 4=HOMEMAKER; 5=LABORER; 6=MANAGER; 7=MILITARY; 8=OPERATIVE; 9=PROFESSIONAL; 10=PROPRIETOR; 11=PROTECTIVE; 12=SALES; 13=SERVICE; 14=TECHNICAL	369 BQ25C	211 BB041

IMPORTANCE OF FACTORS IN DETERMINING PLANS FOR LIFE WORK

75	I-PREVWK	IMPORTANCE TO CAREER PLANS: PREVIOUS WORK	1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY	370 BQ26A	346 EB063A
76	I-INCOME	IMPORTANCE TO CAREER PLANS: GOOD INCOME	1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY	374 BQ26E	347 EB063B
77	I-SECURT	IMPORTANCE TO CAREER PLANS: JOB SECURITY	1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY	375 BQ26F	348 EB063C
78	I-INTWRK	IMPORTANCE TO CAREER PLANS: INTERESTING WORK	1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY	376 BQ26G	349 EB063D
79	I-DECISN	IMPORTANCE TO CAREER PLANS: FREE DECISIONS	1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY	377 BQ26H	350 EB063E
80	I-PEOPLE	IMPORTANCE TO CAREER PLANS: FRIENDLY PEOPLE	1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY	379 BQ26J	351 EB063F
81	ABILITY	DO YOU HAVE ABILITY TO COMPLETE COLLEGE	REVERSED SCALE: 1=DEF NOT; 2=DOUBT IT; 3=NOT SURE; 4=PROBABLY; 5=DEFINITELY	381 BQ28	362 BB069
82	ED PLAN	HIGHEST LEVEL OF EDUCATION PLANNED	1=LT HS; 2=GRAD HS; 3=VOC/JR COLL.; 4=COLLEGE; 5=GRAD/PROF	383 BQ29B	353 BB065
83	1YR PLAN	PLANS FOR FIRST YEAR AFTER HIGH SCHOOL	1=WORK FT; 2=APPRENT; 3=MILITARY; 4=HOMEMAKER; 5=VOCTECH; 6=JR COL ACAD; 7=JR COL VOCTECH; 8=4YR COLLEGE; 9=WORK PT; 10=OTHER;11=JR/4YR COL	385 BQ31	364 BB071

99	FATH ED	FATHER'S HIGHEST LEVEL OF EDUCATION	1=LESS THAN HS:2=HS/EQUIV. ADULT ED: 3=BUSINESS/TRADE OR SOME COL.:4=COLLEGE: 5=GRAD OR SOME GRAD SCHOOL; BLK=MISSING	396 BQ90A	209 BB039
100	MOTH ED	MOTHER'S HIGHEST LEVEL OF EDUCATION	1=LESS THAN HS:2=HS/EQUIV ADULT ED.: 3=BUSINESS/TRADE OR SOME COLLEGE:4=COLL. 5=GRADUATE OR SOME GRADUATE SCHOOL	397 BQ90B	212 BB042
101	M ED PLN	SCHOOLING MOTHER (PARENT) WANT FOR STUDENT	1=QUIT HS: 2=HS ONLY: 3=VOC./JR. COLL: 4=COLLEGE: 5=GRAD/PROF	400 BQ91B	354 BB069
103	PL STUDY	HAVE IN HOME: PLACE TO STUDY	1=HAVE: 0=DO NOT HAVE	403 BQ94A	435 BB104A
104	NEWSPAPR	HAVE IN HOME: DAILY NEWSPAPER	1=HAVE: 0=DO NOT HAVE	404 BQ94B	436 BB104B
105	REF BKS	HAVE IN HOME: ENCYCLOPEDIA/REFERENCE BOOKS	1=HAVE: 0=DO NOT HAVE	406 BQ94D	437 BB104C
106	TYPEWRTR	HAVE IN HOME: TYPEWRITER	1=HAVE: 0 DO NOT HAVE	411 BQ94I	438 BB104D
107	STUDYAID	NUMBER OF STUDY AIDS AVAILABLE IN HOME (COUNTS OF ORIGINAL 103 - 106)	0 - 4: BLK(ONLY IF 103-106 ARE BLK)		

COMMENTS AND CRITICISM ON SCHOOL PROGRAMS

109	PRACWORK	SCHOOL DIDN'T HAVE ENOUGH PRACTICAL WORK EXP	1=AGREE STRONGLY: 2=AGREE: 3=DISAGREE 4=DISAGREE STRONGLY: BLANK=NOT APPLY/ MISSING	305 BQ19E	183 EB035C
110	VOC-ED	SCHOOL SHOULD HAVE MORE VO-TECH COURSES	1=AGREE STRONGLY: 2=AGREE: 3=DISAGREE 4=DISAGREE STRONGLY: BLANK=NOT APPLY/ MISSING	304 BQ19D	182 EB035B
111	ED-COUNS	SCHOOL PROVIDED EDUCATIONAL COUNSL. (REVERSED SCALE)	1=DISAGREE STR.: 2=DISAGREE: 3=AGREE 4=AGREE STRONGLY: BLANK=NOT APPLY/ MISSING	306 BQ19F	184 EB035D
112	WRK COUN	SCHOOL PROVIDED MORE WORK COUNSELING (REVERSED SCALE)	1=DISAGREE STR.: 2=DISAGREE: 3=AGREE 4=AGREE STRONGLY: BLANK=NOT APPLY/ MISSING	309 BQ19I	185 EB035E
113	TOO HARD	DID HARD COURSES INTERFERE WITH EDUC. (REVERSED SCALE)	1=A GREAT DEAL:2=SOMEWHAT: 3=NOT AT ALL: MISSING=BLANK	277 BQ17A	278 EB052A
114	ADJUST	DID SCHOOL ADJUSTMENT INTERFERE (REVERSED SCALE)	1=A GREAT DEAL:2=SOMEWHAT: 3=NOT AT ALL: MISSING=BLANK	284 BQ17H	279 EB052B
115	TEACHER	DID POOR TEACHERS INTERFERE WITH EDUC. (REVERSED SCALE)	1=A GREAT DEAL:2=SOMEWHAT: 3=NOT AT ALL: MISSING=BLANK	285 BQ17I	280 EB052C
116	STUDY	DID POOR STUDY HABITS INTERFERE WITH ED. (REVERSED SCALE)	1=A GREAT DEAL:2=SOMEWHAT: 3=NOT AT ALL: MISSING=BLANK	288 BQ17	281 EB052D

MISC. VARIABLES

117	MOVEJOB (FORMERLY 80B)	WILLING TO MOVE TO GET JOB YOU WANT	REVERSED SCALE: 1=NO: 2=YES BUT RATHER STAY: 3=YES: MISSING=BLANK	417 BQ34	352 EB064
118	ACADEMP	SHOULD HAVE MORE ACADEMIC EMPHASIS/COURSES	1=AGREE STRONGLY:2=AGREE: 3= DISAGREE: 4=DISAGREE STRONGLY BLK=MISSING/NA	301 BQ19A	181 EB035A
119	STUDSEI	STUDENT OCCUPATIONAL ASPIRATIONS (DUNCAN SEI)	DERIVED FROM X(69)		
120	FATHSEI	FATHERS OCCUPATIONAL (DUNCAN SEI)	DERIVED FROM X(71)		
121	MOTHSEI	MOTHERS OCCUPATIONAL (DUNCAN SEI)	DERIVED FROM X(73)		

TEACHING TECHNIQUES USED IN COURSES THIS YEAR

122	LECTURE	LECTURES USED IN COURSES THIS YEAR	1=NEVER: 2=SELDOM: 3=FAIRLY OFTEN: 4=FREQUENTLY: BLK=MISSING	221 BQ4A	19 EB003A
123	DISCUSS	STUDENT DISCUSSION USED THIS YEAR	SAME	222 BQ4B	20 EB003B
124	LAB	PROJECT/LABS USED IN COURSES THIS YEAR	SAME	223 BQ4C	21 EB003C
125	ESSAYS	ESSAYS USED IN COURSES THIS YEAR	SAME	224 BQ4D	22 EB003D
126	INDIVID	INDIVIDUAL INSTRUCTION USED IN COURSES	SAME	226 BQ4F	23 EB003F
127	MACHINE	TEACHING MACHINE USED THIS YEAR	SAME	227 BQ4G	24 EB003G

CLASSIFIER VARIABLES

150	SEX	STUDENT'S SEX	1=MALE: 2=FEMALE: BLANK=MISSING	1626 CSEX	404 BB083
151	SES	SES COMPOSITE	1=LOW: 2=MEDIUM: 3=HIGH: BLK=MISSING	1070 SES	512 BBSES
152	RACE	STUDENT'S RACE COMPOSITE	1=WHITE: 2=BLACK: 3=ASIAN-AMER.: 4=AMER. INDIAN: 5=MEXICAN-AMER: 6=PUERTO RICAN:7=OTHER HISPANIC: 8=OTHER/NA	1625 CRACE	416 BB089 417 BB090
153	SCHTYPE	STUDENT'S SCHOOL TYPE	1=PUBLIC: 2=PRIVATE: 3=CATHOLIC BLANK=MISSING	(FROM SCH. TAPE) = SCHVAR(2)	2 SCHTYPE
154	GEOREG	GEOGRAPHIC REGION OF STUDENT'S SCHOOL	1=NORTHEAST: 2=NORTH CENTRAL:3=SOUTH: 4=WEST: BLANK=MISSING	1066 REGION	6 CENREG
155	HSPROG	STUDENT'S PRESENT HIGH SCHOOL PROGRAM	1=GENERAL: 2=ACADEMIC: 3=VOCTECH	1073 HSPGM	17 BB002
156	COMTYPE	COMMUNITY TYPE	1=URBAN: 2=SUBURB: 3=RURAL: BLK=MISSING	414 BQ95	

APPENDIX A - Table 2

ITEMS COMMON TO 1972 AND 1980 SCHOOL QUESTIONNAIRES

VAR#	LABEL	DESCRIPTION	RESPONSE CODES (CONVERTED)	NLS	HSB 80
2	%WH STAF	% OF CURRENT FACULTY WHO ARE WHITE G1	0-100: MISSING=BLANK	141 SCHQ180	SB095F
3	%MS/PHD	% OF FT TEACHERS WITH MASTERS OR DOCTORATE G2	1=0-29%, 2=30-49% 3=50-69%, 4=70+ %, MISSING=BLANK	179 SCHQ30	SB042
4	%TURNOVR	% OF FT TEACHERS LEAVING SINCE LAST YEAR G3	1=LT 5%, 2=5-9%, 3=10-19%, 4=20-100%, MISSING=BLANK	177 SCHQ28	SB043
5	%ATTEND	APPROX. AVERAGE DAILY PERCENTAGE ATTENDANCE G4	1=95+%, 2=90-95%, 3=85-89%, 4=LT 85%, MISSING=BLANK	124 SCHQ16	SB048
6	%DROPOUT	% ENTERING 10TH GRADE BUT NOT GRADUATING G3	0-100: MISSING=BLANK (NLS: AVG OF BOYS AND GIRLS) AVG OF:	125 SCHQ17A 126 SCH17B	SB014
7	%WHITE	% OF CURRENT STUDENTS WHO ARE WHITE G1	0-100: MISSING=BLANK	133 SCHQ18G	SB095S
8	%BLACK	% OF CURRENT STUDENTS WHO ARE BLACK G5	0-100: MISSING=BLANK	128 SCHQ18B	SB094S
9	%HISPAN	% OF CURRENT STUDENTS WHO ARE HISPANIC G5	0-100: MISSING=BLANK (SUM OF MEXICAN, P.R., OTHER LATIN) SUM OF:	129 SCHQ18C 130SCHQ18D 131SCHQ18E	SB093S
10	%COL BND	% OF LAST YEARS GRADS NOW IN 2/4 YR COLLEGE G2	1=LT 30%, 2=30-49%, 3=50-69%, 4=70+%, MISSING=BLANK	157 SCHQ22	SB011
11	%ACAD	% ENROLLED IN COLLEGE PREPARATORY CURRICULUM G2	0-100: MISSING=BLANK	53 SCHQ03T	WEIGHTED AVG OF SB017BY + 17BE
12	%GENERAL	% ENROLLED IN GENERAL CURRICULUM G2	0-100: MISSING=BLANK	52 SCHQ03S	WEIGHTED AVG OF SB017AY + 17AE
13	%VOCTECH	% ENROLLED IN VOC-TECH CURRICULUM G6	0-100: MISSING=BLANK SUM OF: THROUGH	54 SCHQ03U 59 SCHQ03Z	SUM OF WTD AVG' OF SB017C1Y-C7Y
16	STUD/TCHR	# OF STUDENTS PER CLASROM TEACHER	#STUDENTS/# TEACHERS: MISSING=BLANK (RANGE CHECK: 0-100)	176 SCHQ27 / 33 SCHQ20	SB039C/SB042A
18	% HAND	% OF STUDENTS CLASSIFIED AS HANDICAPPED	100* #HANDICAPPED/# STUDENTS (RANGE CHECK 0- ?) MISSING=BLANK	70 SCHQ8 /33 SCHQ20	SB034/SB002A
19	SPEC ED	TYPE OF SPECIAL ED TREATMENT	MEAN OF ALL HANDICAPPED VARS. 1=REGULAR CLASSES: 2=MIX OF 1 & 3 3=SPECIAL CLASSES	MEAN OF 71-81 SCHQ9A-K	MEAN OF SB035A SB035K
20	% DISADV	% OF STUDENTS CLASSIFIED AS DISADVANTAGED	100* #DISADVANTAGED/#STUDENTS (RANGE CHECK 0- ?) MISSING=BLANK	87 SCHQ11 /33 SCHQ20	SB037/SB002A

24	TITLE I	HIGH SCHOOL PARTICIPATES IN TITLE I (ESS ED. ACT, LOW INCOME)	1=YES; 0=NO; MISSING=BLANK	166 SCHQ26C	SB032C1
25	TITLE 7	HIGH SCHOOL PARTICIPATES IN TITLE VII (ESS BILINGUAL)	1=YES; 0=NO; MISSING=BLANK	169 SCHQ26F	SB032C5
26	TITLE IB	HS PART. IN TITLE I-B: VOC EDUC-BASIC (VOCATIONL EDUACTION)	1=YES; 0=NO; MISSING=BLANK	171 SCHQ26H	SB032H2
27	TITLE IF	HS PART. IN TITLE I-F: VOC EDUC-HOMEMAKING	1=YES; 0=NO; MISSING=BLANK	173 SCHQ26J	SB032H1
28	ABIL GRP	HIGH SCHOOL USES ABILITY GROUPING	1=ANY YES; 0=NO; MISSING =BLANK	121 SCHQ13 (ANY YES)	SB019 OR SB020 (ENG10 OR ENG12)
29	OFFER AP	HIGH SCHOOL OFFERS AP COURSES	1=YES; 0=NO; MISSING =BLANK	160 SCHQ25A	SB029AD

CLASSIFIERS

35	SCH SES	MEAN SES OF STUDENTS IN SCHOOL	1=LOW QUARTILE; 2=MIDDLE TWO QUARTILES; 3=HIGH Q.	MEAN OF CONTINUOUS SES FROM STUDENT FILES	
36	SCH TYPE	SCHOOL TYPE OF CONTROL	1=PUBLIC; 2=PRIVATE; 3=CATHOLIC	16	
37	REGION	REGION	1=NORTHEAST; 2=NORTH CENTRAL; 3=SOUTH; 4=WEST	502 (STATE) CONVERTED	
38	COM TYPE	COMMUNITY TYPE (URBANIZATION)	1=URBAN; 2=SUBURBAN; 3=RURAL	240	
39	WEIGHT	SCHOOL SAMPLE WEIGHT		02	
40	SCHL ID	SCHOOL ID NUMBER		01	
41	#STUDENT	# OF STUDENTS IN THE SCHOOL		33 SCHQ02Q	COLS (117,121)
42	#SENIORS	# OF SENIORS IN THE SCHOOL		32 SCHQ2N	COLS (127,131)
43	STATUS	SURVEY STATUS	NLS: 1=BYP; 2=EXTRA BY; 3=RESURVEY	03	

APPENDIX B

Definitions of Variables and Coding Procedures

APPENDIX B

Some of the population classification variables used in this report are self-explanatory while others need additional definition. Definitions and coding procedures for the latter are presented below.

SES - SES scores are based on an equally weighted composite consisting of father's occupation, family income and selected household items.

LOW SES--is the lower quartile of the SES composite scores.

MIDDLE SES--is the two middle quartiles of the SES composite scores.

HIGH SES--is the upper quartile of the SES composite scores.

RACE - In 1972, individuals who responded as Blacks were coded as Blacks. Similar coding was carried out for Mexican-Americans and Puerto Ricans. "Other Hispanics" were other Latin Americans. In selected cross-tabs, Mexican-Americans, Puerto Ricans and Other Hispanics were combined into a "Hispanic" category.

- In 1980, individuals who responded Black but who also responded that their place of origin was one of the Hispanic countries were coded to reflect place of origin. With this exception, the coding was the same as 1972.

GEOGRAPHIC REGION - In 1972 and 1980 the four regions consisted of the following:

Northeast--New England amd Middle Atlantic

North Central--East North Central and West North Central

South--South Atlantic, East South Central and West South Central

West--Mountain and Pacific

CURRICULUM - Self-report in both 1972 and 1980.

URBAN, SUBURBAN, RURAL - 1972: Rural is rural only.

Suburban is small city or town, suburb of a medium or large city.

Urban is medium-sized city, large city or very large city.

- 1980: Reported by school administrators in response to a question having the above three categories.

APPENDIX C

Cross-Tabulations of Test Scores

5-1.1

IRT VOCABULARY FORMULA SCORE
(SCALED TO NLS VOCABULARY TEST)

SEX X CURRICULUM

		NLS 1972				HSB 1980						
SEX	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
MALE	GENERAL	2785	468512	5.27	3.6	4186	457657	5.05	3.2	3.37	-0.23	-0.07
MALE	ACADEMIC	3382	695507	8.04	3.9	4496	470223	7.81	3.6	3.73	-0.23	-0.06
MALE	VOCATIONAL	1637	261824	4.27	3.4	2551	275329	4.16	2.9	3.12	-0.11	-0.04
FEMALE	GENERAL	2519	432012	5.36	3.6	4514	481037	4.76	3.2	3.34	-0.60 *	-0.18
FEMALE	ACADEMIC	3097	626809	8.56	3.7	4772	518439	7.56	3.6	3.66	-1.00 *	-0.27
FEMALE	VOCATIONAL	2270	374454	5.01	3.4	3196	338336	4.25	3.0	3.15	-0.75 *	-0.24

5-1.2

SES X RACE

		NLS 1972				HSB 1980						
SES	RACE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	WHITE	2494	440597	5.52	3.7	3891	449362	4.71	3.2	3.39	-0.81 *	-0.24
LOW	BLACK	1230	146835	2.76	2.7	1603	147551	2.75	2.5	2.59	-0.01	-0.01
LOW	HISPANIC	456	57358	3.26	2.9	1524	78204	3.07	2.7	2.74	-0.18	-0.07
MIDDLE	WHITE	6273	1283402	6.80	3.7	9033	1068234	6.08	3.4	3.53	-0.72 *	-0.20
MIDDLE	BLACK	585	74623	3.91	3.1	1115	97817	3.67	2.8	2.96	-0.24	-0.08
MIDDLE	HISPANIC	206	29568	4.14	3.2	908	57446	4.16	3.1	3.09	0.03	0.01
HIGH	WHITE	3383	653922	8.70	3.8	4709	567221	7.88	3.6	3.65	-0.82 *	-0.23
HIGH	BLACK	102	12332	5.76	4.1	276	22306	5.37	3.6	3.72	-0.39	-0.11
HIGH	HISPANIC	47	6777	5.79	3.2	226	14503	4.90	3.2	3.19	-0.89	-0.28

*SIGNIFICANT AT .05 OR LESS

5-1.3

IRT VOCABULARY FORMULA SCORE
(SCALED TO NLS VOCABULARY TEST)

SES X SCHOOL TYPE

		NLS 1972				HSB 1980						
SES	SCHOOL TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	PUBLIC	4112	630281	4.48	3.6	6775	670332	3.95	3.1	3.27	-0.53 *	-0.16
LOW	PRIVATE	9	1940	8.19	3.2	57	9351	4.69	3.3	3.33	-3.51	-1.05
LOW	CATHOLIC	138	29087	7.63	3.7	537	27671	6.27	3.5	3.53	-1.37 *	-0.39
MIDDLE	PUBLIC	6672	1285659	6.40	3.7	10121	1152308	5.66	3.4	3.55	-0.74 *	-0.21
MIDDLE	PRIVATE	33	7890	7.10	3.0	178	26930	6.55	3.5	3.45	-0.55	-0.16
MIDDLE	CATHOLIC	549	132729	7.87	3.7	1175	89768	6.94	3.4	3.53	-0.93 *	-0.26
HIGH	PUBLIC	3261	615445	8.58	3.8	4198	517537	7.57	3.6	3.69	-1.01 *	-0.28
HIGH	PRIVATE	23	6068	8.97	4.7	490	47134	9.24	3.8	3.86	0.27	0.07
HIGH	CATHOLIC	303	62517	9.29	3.5	769	62715	7.69	3.5	3.51	-1.61 *	-0.46

5-1.4

SES X GEOGRAPHIC REGION

		NLS 1972				HSB 1980						
SES	REGION	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	NORTHEAST	836	157542	5.57	3.9	1457	145742	4.72	3.3	3.53	-0.85 *	-0.24
LOW	NORTH CENTRAL	987	187162	5.03	3.6	1735	179518	4.52	3.2	3.34	-0.51 *	-0.15
LOW	SOUTH	2045	257851	3.74	3.2	2968	282557	3.42	2.9	3.04	-0.32 *	-0.11
LOW	WEST	623	91290	4.37	3.5	1209	99538	4.03	3.1	3.27	-0.34	-0.11
MIDDLE	NORTHEAST	1786	422549	7.14	3.8	2314	288557	6.30	3.5	3.63	-0.83 *	-0.23
MIDDLE	NORTH CENTRAL	2147	454048	6.47	3.7	3754	414256	5.82	3.4	3.52	-0.65 *	-0.18
MIDDLE	SOUTH	2197	341416	5.77	3.6	3396	346648	5.17	3.4	3.45	-0.59 *	-0.17
MIDDLE	WEST	1356	242788	6.59	3.8	2010	219546	5.92	3.5	3.62	-0.67 *	-0.18
HIGH	NORTHEAST	855	194505	9.25	3.6	1119	162116	8.66	3.7	3.67	-0.59 *	-0.16
HIGH	NORTH CENTRAL	946	187723	8.46	3.8	1632	175383	7.50	3.5	3.61	-0.96 *	-0.26
HIGH	SOUTH	1080	172449	8.24	3.9	1606	153689	7.07	3.6	3.74	-1.18 *	-0.31
HIGH	WEST	782	141085	8.49	3.8	1100	136197	7.56	3.5	3.62	-0.93 *	-0.26

*SIGNIFICANT AT .05 OR LESS

5-1.5

IRT VOCABULARY FORMULA SCORE
(SCALED TO NLS VOCABULARY TEST)

SES X CURRICULUM

		NLS 1972				HSB 1980						
SES	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	GENERAL	1792	275447	4.09	3.3	3124	303653	3.85	2.9	3.05	-0.24	-0.08
LOW	ACADEMIC	1049	176784	6.46	4.0	1636	147855	5.69	3.6	3.77	-0.77 *	-0.20
LOW	VOCATIONAL	1650	241613	3.79	3.2	2476	243811	3.39	2.7	2.92	-0.40 *	-0.14
MIDDLE	GENERAL	2585	463462	5.47	3.5	4305	481705	5.07	3.2	3.28	-0.40 *	-0.12
MIDDLE	ACADEMIC	2998	663687	7.95	3.6	4253	459862	7.36	3.5	3.53	-0.58 *	-0.17
MIDDLE	VOCATIONAL	1902	333350	5.13	3.4	2794	312810	4.59	2.9	3.14	-0.55 *	-0.17
HIGH	GENERAL	905	157840	7.06	3.7	1419	170255	6.17	3.2	3.42	-0.89 *	-0.26
HIGH	ACADEMIC	2422	479275	9.46	3.6	3448	387614	8.79	3.5	3.51	-0.67 *	-0.19
HIGH	VOCATIONAL	336	58648	6.11	3.5	549	64281	5.45	3.0	3.21	-0.66	-0.21

5-1.6

SES X COMMUNITY TYPE

		NLS 1972				HSB 1980						
SES	COMMUNITY TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	URBAN	1192	173605	4.48	3.6	2059	164566	3.75	3.1	3.25	-0.73 *	-0.22
LOW	SUBURBAN	1668	271149	4.78	3.7	2697	264518	4.22	3.2	3.39	-0.57 *	-0.17
LOW	RURAL	1489	231322	4.59	3.6	2613	278270	4.08	3.1	3.28	-0.51 *	-0.16
MIDDLE	URBAN	1985	364152	6.28	3.7	2296	227999	5.46	3.5	3.61	-0.82 *	-0.23
MIDDLE	SUBURBAN	3633	751303	6.88	3.8	5633	625854	6.01	3.4	3.57	-0.87 *	-0.24
MIDDLE	RURAL	1669	311812	6.12	3.7	3545	415153	5.58	3.4	3.50	-0.55 *	-0.16
HIGH	URBAN	903	163506	8.22	3.8	950	101713	7.53	3.8	3.83	-0.69 *	-0.18
HIGH	SUBURBAN	2328	454622	8.91	3.7	3323	386381	7.86	3.6	3.66	-1.05 *	-0.29
HIGH	RURAL	372	66836	8.06	3.9	1184	139292	7.40	3.5	3.61	-0.67	-0.18

*SIGNIFICANT AT .05 OR LESS

5-2.1

IRT READING FORMULA SCORE (SCALED TO NLS READING TEST)

SEX X CURRICULUM

		NLS 1972				HSB 1980						
SEX	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
MALE	GENERAL	2789	469294	8.48	4.8	4181	457068	7.79	4.9	4.85	-0.68 *	-0.14
MALE	ACADEMIC	3386	696241	11.77	4.4	4486	468792	11.52	4.7	4.61	-0.25	-0.05
MALE	VOCATIONAL	1636	261880	7.09	4.8	2548	274626	6.62	4.8	4.80	-0.47	-0.10
FEMALE	GENERAL	2520	432074	8.49	4.8	4494	479098	7.78	4.7	4.72	-0.71 *	-0.15
FEMALE	ACADEMIC	3098	627198	12.23	4.4	4755	517360	11.31	4.6	4.57	-0.92 *	-0.20
FEMALE	VOCATIONAL	2278	375477	7.81	4.5	3192	337661	7.20	4.5	4.54	-0.60 *	-0.13

5-2.2

SES X RACE

		NLS 1972				HSB 1980						
SES	RACE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	WHITE	2498	441177	8.90	4.9	3887	448611	7.71	4.8	4.80	-1.19 *	-0.25
LOW	BLACK	1237	147590	5.25	4.2	1591	146527	4.90	4.1	4.17	-0.35	-0.08
LOW	HISPANIC	457	57591	5.84	4.3	1522	78299	5.01	4.2	4.22	-0.83 *	-0.20
MIDDLE	WHITE	6275	1284218	10.30	4.6	9001	1064311	9.47	4.8	4.76	-0.83 *	-0.17
MIDDLE	BLACK	586	74714	6.88	4.6	1117	98049	6.42	4.6	4.61	-0.46	-0.10
MIDDLE	HISPANIC	205	29511	6.80	4.9	904	57212	6.44	4.6	4.70	-0.36	-0.08
HIGH	WHITE	3383	653764	12.23	4.4	4701	566634	11.47	4.7	4.60	-0.76 *	-0.16
HIGH	BLACK	102	12332	8.80	4.9	274	22217	7.84	4.9	4.94	-0.96	-0.19
HIGH	HISPANIC	48	7002	8.67	4.9	226	14527	7.04	4.7	4.78	-1.63	-0.34

*SIGNIFICANT AT .05 OR LESS

5-2.3

IRT READING FORMULA SCORE
(SCALED TO NLS READING TEST)

SES X SCHOOL TYPE

		NLS 1972				HSB 1980						
SES	SCHOOL TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	PUBLIC	4124	631877	7.52	4.9	6758	668490	6.63	4.7	4.81	-0.89 *	-0.19
LOW	PRIVATE	9	1940	12.37	5.5	57	9351	7.18	5.0	5.13	-5.20	-1.01
LOW	CATHOLIC	138	29087	11.19	4.2	535	27659	8.87	4.6	4.51	-2.32 *	-0.51
MIDDLE	PUBLIC	6675	1286706	9.82	4.8	10089	1147909	8.95	4.9	4.87	-0.87 *	-0.18
MIDDLE	PRIVATE	33	7890	10.13	4.3	178	27117	10.27	5.4	5.25	0.14	0.03
MIDDLE	CATHOLIC	548	132557	11.20	4.4	1171	89847	10.01	4.6	4.54	-1.19 *	-0.26
HIGH	PUBLIC	3262	615511	12.08	4.5	4196	517043	11.10	4.8	4.71	-0.99 *	-0.21
HIGH	PRIVATE	23	6068	12.92	5.4	488	47122	12.89	4.3	4.38	-0.03	-0.01
HIGH	CATHOLIC	303	62517	12.65	4.2	764	62685	10.77	4.8	4.65	-1.89 *	-0.41

5-2.4

SES X GEOGRAPHIC REGION

		NLS 1972				HSB 1980						
SES	REGION	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	NORTHEAST	837	157764	8.57	4.9	1446	144489	7.53	4.7	4.79	-1.04 *	-0.22
LOW	NORTH CENTRAL	992	187797	8.20	4.9	1732	179111	7.46	4.8	4.84	-0.74 *	-0.15
LOW	SOUTH	2049	258334	6.73	4.9	2965	282458	5.89	4.7	4.76	-0.84 *	-0.18
LOW	WEST	625	91545	7.49	4.9	1207	99442	6.63	4.5	4.67	-0.86 *	-0.18
MIDDLE	NORTHEAST	1787	422789	10.35	4.7	2295	286207	9.48	4.8	4.75	-0.86 *	-0.18
MIDDLE	NORTH CENTRAL	2150	454846	9.94	4.7	3748	413330	9.31	4.9	4.81	-0.63 *	-0.13
MIDDLE	SOUTH	2196	341285	9.47	4.8	3393	346732	8.37	5.1	4.95	-1.09 *	-0.22
MIDDLE	WEST	1356	242962	9.75	4.9	2002	218604	9.08	4.9	4.92	-0.67 *	-0.14
HIGH	NORTHEAST	853	193977	12.68	4.5	1115	161665	11.93	4.6	4.56	-0.75 *	-0.16
HIGH	NORTH CENTRAL	948	188091	11.86	4.5	1633	175487	11.14	4.8	4.68	-0.72 *	-0.15
HIGH	SOUTH	1081	172597	12.15	4.4	1604	153862	10.74	5.0	4.76	-1.41 *	-0.30
HIGH	WEST	782	141164	11.73	4.8	1096	135836	10.92	4.8	4.78	-0.81 *	-0.17

*SIGNIFICANT AT .05 OR LESS

5-2.5

IRT READING FORMULA SCORE
(SCALED TO NLS READING TEST)

SES X CURRICULUM

		NLS 1972				HSB 1980						
SES	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	GENERAL	1795	275873	7.00	4.8	3112	302403	6.35	4.5	4.59	-0.65 *	-0.14
LOW	ACADEMIC	1050	176902	10.21	4.9	1632	147683	9.17	4.9	4.92	-1.05 *	-0.21
LOW	VOCATIONAL	1658	242666	6.51	4.6	2472	243219	5.84	4.5	4.51	-0.67 *	-0.15
MIDDLE	GENERAL	2585	463576	8.79	4.6	4290	480026	8.11	4.8	4.71	-0.68 *	-0.14
MIDDLE	ACADEMIC	3001	664544	11.67	4.3	4236	458151	11.18	4.6	4.49	-0.48 *	-0.11
MIDDLE	VOCATIONAL	1902	333460	7.99	4.6	2793	312351	7.45	4.6	4.58	-0.54 *	-0.12
HIGH	GENERAL	907	158144	10.25	4.6	1419	170498	9.37	4.7	4.64	-0.88 *	-0.19
HIGH	ACADEMIC	2423	479422	13.11	4.1	3440	386868	12.52	4.4	4.27	-0.60 *	-0.14
HIGH	VOCATIONAL	334	58262	9.19	4.7	548	64248	8.38	4.9	4.85	-0.81	-0.17

5-2.6

SES X COMMUNITY TYPE

		NLS 1972				HSB 1980						
SES	COMMUNITY TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	URBAN	1198	174221	7.39	4.8	2055	164204	6.35	4.6	4.66	-1.04 *	-0.22
LOW	SUBURBAN	1673	271990	7.79	4.9	2684	263083	6.94	4.7	4.80	-0.85 *	-0.18
LOW	RURAL	1492	231638	7.89	5.2	2611	278214	6.75	4.8	4.96	-1.14 *	-0.23
MIDDLE	URBAN	1985	364226	9.45	4.8	2288	226736	8.64	5.0	4.91	-0.81 *	-0.17
MIDDLE	SUBURBAN	3633	751486	10.31	4.7	5608	623296	9.23	4.8	4.76	-1.08 *	-0.23
MIDDLE	RURAL	1671	312429	9.83	4.8	3542	414842	9.01	5.0	4.96	-0.82 *	-0.17
HIGH	URBAN	904	163697	11.70	4.7	953	101670	11.06	4.9	4.79	-0.63	-0.13
HIGH	SUBURBAN	2328	454498	12.42	4.4	3315	386174	11.27	4.8	4.65	-1.16 *	-0.25
HIGH	RURAL	372	66836	11.51	4.6	1180	139006	11.11	4.8	4.78	-0.41	-0.09

*SIGNIFICANT AT .05 OR LESS

5-3.1

IRT MATHEMATICS FORMULA SCORE
(SCALED TO NLS MATHEMATICS TEST)

SEX X CURRICULUM

		NLS 1972				HSB 1980						
SEX	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
MALE	GENERAL	2785	468685	11.17	6.8	4164	455165	10.72	6.7	6.70	-0.45	-0.07
MALE	ACADEMIC	3386	696179	17.26	6.2	4491	470390	17.18	6.1	6.18	-0.08	-0.01
MALE	VOCATIONAL	1636	261450	9.26	6.4	2528	272996	9.06	6.6	6.56	-0.20	-0.03
FEMALE	GENERAL	2517	432063	9.58	6.7	4457	475102	9.30	6.3	6.42	-0.28	-0.04
FEMALE	ACADEMIC	3099	627279	16.00	6.2	4748	516868	15.47	6.0	6.08	-0.53 *	-0.09
FEMALE	VOCATIONAL	2276	375276	8.45	6.0	3172	336380	8.28	5.8	5.90	-0.17	-0.03

5-3.2

SES X RACE

		NLS 1972				HSB 1980						
SES	RACE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	WHITE	2495	440916	11.16	7.0	3858	445567	9.70	6.4	6.64	-1.47 *	-0.22
LOW	BLACK	1233	147062	5.68	5.8	1592	147685	5.76	5.7	5.76	0.09	0.01
LOW	HISPANIC	453	57164	7.41	6.2	1506	76832	6.46	6.5	6.42	-0.95	-0.15
MIDDLE	WHITE	6275	1284140	13.47	6.8	8986	1064151	12.77	6.6	6.69	-0.70 *	-0.11
MIDDLE	BLACK	586	74716	7.54	6.5	1114	97737	7.58	6.4	6.45	0.04	0.01
MIDDLE	HISPANIC	206	29568	8.08	7.0	895	56474	8.95	6.9	6.94	0.86	0.12
HIGH	WHITE	3385	654070	16.82	6.1	4688	564825	16.14	6.3	6.20	-0.68 *	-0.11
HIGH	BLACK	102	12332	10.21	6.3	272	22047	10.88	7.3	7.05	0.67	0.10
HIGH	HISPANIC	48	7002	10.94	6.8	224	14298	11.44	6.5	6.59	0.50	0.08

*SIGNIFICANT AT .05 OR LESS

5-3.3

IRT MATHEMATICS FORMULA SCORE (SCALED TO NLS MATHEMATICS TEST)

SES X SCHOOL TYPE

		NLS 1972				HSB 1980						
SES	SCHOOL TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	PUBLIC	4114	630718	9.27	7.0	6708	664658	8.27	6.5	6.70	-0.99 *	-0.15
LOW	PRIVATE	9	1940	13.86	6.4	57	9351	8.64	6.5	6.58	-5.22	-0.79
LOW	CATHOLIC	138	29087	13.81	7.0	538	27694	12.37	6.7	6.77	-1.44	-0.21
MIDDLE	PUBLIC	6675	1286515	12.76	7.1	10058	1146465	11.98	6.8	6.92	-0.78 *	-0.11
MIDDLE	PRIVATE	33	7890	14.36	5.6	179	27304	13.04	6.9	6.73	-1.32	-0.20
MIDDLE	CATHOLIC	549	132729	14.70	6.3	1173	89868	14.26	6.2	6.20	-0.44	-0.07
HIGH	PUBLIC	3264	615817	16.53	6.3	4175	514958	15.63	6.6	6.46	-0.90 *	-0.14
HIGH	PRIVATE	23	6068	18.05	5.3	488	47122	18.35	5.2	5.21	0.30	0.06
HIGH	CATHOLIC	303	62517	17.50	5.8	765	62555	15.56	5.8	5.77	-1.94 *	-0.34

5-3.4

SES X GEOGRAPHIC REGION

		NLS 1972				HSB 1980						
SES	REGION	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	NORTHEAST	836	157716	10.47	7.2	1430	143718	9.62	6.7	6.91	-0.85	-0.12
LOW	NORTH CENTRAL	992	187797	10.41	7.0	1724	178420	9.74	6.6	6.74	-0.67	-0.10
LOW	SOUTH	2043	257616	8.16	6.8	2953	281934	7.04	6.1	6.39	-1.11 *	-0.17
LOW	WEST	622	91153	8.91	7.0	1196	97631	8.33	6.7	6.77	-0.58	-0.09
MIDDLE	NORTHEAST	1788	422848	13.58	6.9	2297	287033	13.38	6.7	6.81	-0.20	-0.03
MIDDLE	NORTH CENTRAL	2150	454942	13.09	6.9	3749	413646	12.67	6.7	6.78	-0.42	-0.06
MIDDLE	SOUTH	2196	341237	12.44	7.0	3389	346872	10.76	6.7	6.83	-1.68 *	-0.25
MIDDLE	WEST	1356	242837	12.04	7.3	1975	216085	11.82	6.8	7.02	-0.22	-0.03
HIGH	NORTHEAST	854	194231	17.48	5.9	1110	161056	17.24	6.0	5.96	-0.24	-0.04
HIGH	NORTH CENTRAL	947	187807	16.71	6.2	1628	175098	15.81	6.4	6.36	-0.90 *	-0.14
HIGH	SOUTH	1081	172597	16.72	6.2	1600	153784	14.75	6.6	6.42	-1.97 *	-0.31
HIGH	WEST	784	141500	15.21	6.7	1090	134697	15.39	6.4	6.56	0.18	0.03

*SIGNIFICANT AT .05 OR LESS

5-3.5

IRT MATHEMATICS FORMULA SCORE
(SCALED TO NLS MATHEMATICS TEST)

SES X CURRICULUM

		NLS 1972				HSB 1980						
SES	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	GENERAL	1787	274915	8.31	6.5	3085	299906	7.76	6.1	6.23	-0.55	-0.09
LOW	ACADEMIC	1050	176935	14.03	7.4	1627	147350	12.44	6.9	7.09	-1.59 *	-0.22
LOW	VOCATIONAL	1656	242432	7.24	5.8	2458	242398	6.99	5.9	5.88	-0.24	-0.04
MIDDLE	GENERAL	2584	463435	10.61	6.6	4280	479249	10.36	6.3	6.44	-0.24	-0.04
MIDDLE	ACADEMIC	3002	664530	16.19	6.1	4239	459415	16.00	6.0	6.06	-0.19	-0.03
MIDDLE	VOCATIONAL	1903	333596	9.56	6.3	2771	310480	9.38	6.1	6.17	-0.18	-0.03
HIGH	GENERAL	909	158623	13.57	6.4	1407	168699	12.87	6.4	6.38	-0.70	-0.11
HIGH	ACADEMIC	2423	479422	18.32	5.4	3437	386931	18.01	5.4	5.37	-0.31	-0.06
HIGH	VOCATIONAL	334	58089	10.94	6.1	544	63884	10.82	6.5	6.37	-0.12	-0.02

5-3.6

SES X COMMUNITY TYPE

		NLS 1972				HSB 1980						
SES	COMMUNITY TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	URBAN	1195	173866	8.67	6.8	2025	161943	7.99	6.7	6.71	-0.67	-0.10
LOW	SUBURBAN	1669	271509	9.60	7.1	2678	263153	8.76	6.5	6.75	-0.84 *	-0.12
LOW	RURAL	1489	231345	9.99	7.2	2600	276607	8.39	6.5	6.75	-1.60 *	-0.24
MIDDLE	URBAN	1987	364531	12.13	7.0	2282	226895	11.59	7.0	6.97	-0.54	-0.08
MIDDLE	SUBURBAN	3633	751238	13.43	7.0	5591	622240	12.51	6.7	6.83	-0.92 *	-0.13
MIDDLE	RURAL	1671	312429	12.97	7.0	3537	414501	11.94	6.8	6.86	-1.02 *	-0.15
HIGH	URBAN	903	163413	16.01	6.5	946	101386	15.51	6.7	6.60	-0.51	-0.08
HIGH	SUBURBAN	2331	455088	16.99	6.1	3305	384616	16.06	6.4	6.25	-0.93 *	-0.15
HIGH	RURAL	372	66836	16.01	6.4	1177	138632	15.42	6.4	6.40	-0.59	-0.09

*SIGNIFICANT AT .05 OR LESS

5-4.1

GRADES IN HIGH SCHOOL
(1=BELOW D; 8=MOSTLY A)

SEX X CURRICULUM

		NLS 1972				HSB 1980						
SEX	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
MALE	GENERAL	2944	498317	4.77	1.3	4730	519772	5.00	1.4	1.35	0.23 *	0.17
MALE	ACADEMIC	3540	728838	5.79	1.3	5004	535880	6.17	1.3	1.32	0.38 *	0.29
MALE	VOCATIONAL	1737	279414	4.77	1.3	2908	314921	5.06	1.3	1.29	0.29 *	0.22
FEMALE	GENERAL	2691	463502	5.43	1.4	4993	532192	5.57	1.4	1.38	0.14 *	0.10
FEMALE	ACADEMIC	3230	654107	6.34	1.2	5231	571689	6.56	1.2	1.22	0.23 *	0.18
FEMALE	VOCATIONAL	2428	398889	5.50	1.3	3581	379345	5.66	1.3	1.31	0.15 *	0.12

5-4.2

SES X RACE

		NLS 1972				HSB 1980						
SES	RACE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	WHITE	2622	464395	5.36	1.5	4276	494242	5.45	1.4	1.45	0.10	0.07
LOW	BLACK	1347	159372	5.07	1.3	1896	178039	5.25	1.3	1.33	0.18 *	0.13
LOW	HISPANIC	489	61050	5.10	1.4	1751	93565	5.15	1.4	1.38	0.05	0.04
MIDDLE	WHITE	6586	1356371	5.55	1.4	9933	1181692	5.77	1.4	1.40	0.22 *	0.16
MIDDLE	BLACK	635	80621	5.16	1.3	1297	114810	5.28	1.3	1.32	0.12	0.09
MIDDLE	HISPANIC	223	31815	5.21	1.3	1034	68013	5.24	1.4	1.38	0.03	0.02
HIGH	WHITE	3547	687301	6.00	1.4	5278	645596	6.18	1.4	1.38	0.19 *	0.13
HIGH	BLACK	111	13342	5.11	1.2	318	26785	5.57	1.4	1.35	0.46	0.34
HIGH	HISPANIC	49	7282	5.50	1.4	272	18636	5.56	1.3	1.31	0.06	0.05

*SIGNIFICANT AT .05 OR LESS

5-4.3

GRADES IN HIGH SCHOOL (1=BELOW D; 8=MOSTLY A)

SES X SCHOOL TYPE

		NLS 1972				HSB 1980						
SES	SCHOOL TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	PUBLIC	4347	665677	5.22	1.4	7694	763634	5.34	1.4	1.43	0.12 *	0.09
LOW	PRIVATE	9	1940	6.42	1.0	75	11381	5.63	1.3	1.30	-0.79	-0.61
LOW	CATHOLIC	142	30552	5.91	1.3	566	29165	5.86	1.4	1.36	-0.05	-0.03
MIDDLE	PUBLIC	7033	1362498	5.47	1.4	11285	1287288	5.67	1.4	1.41	0.20 *	0.14
MIDDLE	PRIVATE	33	7890	5.45	1.3	221	33625	6.06	1.3	1.34	0.61	0.46
MIDDLE	CATHOLIC	565	137933	5.85	1.3	1236	96100	5.93	1.3	1.30	0.08	0.06
HIGH	PUBLIC	3424	646266	5.96	1.4	4764	591150	6.12	1.4	1.41	0.16 *	0.11
HIGH	PRIVATE	24	6332	5.62	1.1	560	57216	6.29	1.3	1.25	0.67	0.53
HIGH	CATHOLIC	316	66323	6.21	1.1	826	71040	6.14	1.3	1.25	-0.06	-0.05

5-4.4

SES X GEOGRAPHIC REGION

		NLS 1972				HSB 1980						
SES	REGION	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	NORTHEAST	863	162829	5.38	1.4	1655	166638	5.55	1.4	1.38	0.17	0.12
LOW	NORTH CENTRAL	1160	210689	5.06	1.5	1948	200398	5.22	1.5	1.46	0.16	0.11
LOW	SOUTH	2099	263362	5.35	1.4	3341	319533	5.39	1.4	1.42	0.04	0.03
LOW	WEST	667	99957	5.13	1.5	1391	117611	5.27	1.4	1.41	0.14	0.10
MIDDLE	NORTHEAST	1832	433713	5.56	1.3	2557	321711	5.83	1.3	1.31	0.26 *	0.20
MIDDLE	NORTH CENTRAL	2345	496047	5.36	1.4	4105	453061	5.59	1.5	1.45	0.23 *	0.16
MIDDLE	SOUTH	2256	349749	5.63	1.4	3773	388208	5.76	1.4	1.43	0.13	0.09
MIDDLE	WEST	1451	266371	5.50	1.4	2307	254032	5.64	1.4	1.40	0.14	0.10
HIGH	NORTHEAST	871	196885	6.03	1.3	1253	184337	6.27	1.3	1.34	0.23 *	0.17
HIGH	NORTH CENTRAL	1032	204171	5.87	1.3	1797	192736	6.05	1.4	1.39	0.18	0.13
HIGH	SOUTH	1109	176926	6.08	1.4	1825	181383	6.17	1.4	1.44	0.09	0.06
HIGH	WEST	829	152998	5.94	1.4	1275	160951	6.06	1.4	1.37	0.12	0.09

*SIGNIFICANT AT .05 OR LESS

5-4.5

GRADES IN HIGH SCHOOL
(1=BELOW D; 8=MOSTLY A)

SES X CURRICULUM

		NLS 1972				HSB 1980						
SES	CURRICULUM	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	GENERAL	1905	291672	4.97	1.4	3514	341454	5.12	1.4	1.39	0.15 *	0.11
LOW	ACADEMIC	1100	185782	5.90	1.3	1839	166887	6.00	1.4	1.36	0.09	0.07
LOW	VOCATIONAL	1784	259383	5.08	1.4	2819	279206	5.29	1.4	1.38	0.21 *	0.15
MIDDLE	GENERAL	2741	496541	5.08	1.4	4803	538090	5.30	1.4	1.39	0.23 *	0.16
MIDDLE	ACADEMIC	3140	696326	5.91	1.3	4649	508929	6.32	1.3	1.28	0.41 *	0.32
MIDDLE	VOCATIONAL	2002	352709	5.30	1.3	3152	353541	5.43	1.3	1.33	0.13 *	0.10
HIGH	GENERAL	968	170186	5.33	1.4	1613	196081	5.48	1.4	1.39	0.14	0.10
HIGH	ACADEMIC	2516	497701	6.31	1.2	3854	442733	6.56	1.2	1.24	0.25 *	0.20
HIGH	VOCATIONAL	357	63092	5.13	1.2	634	74778	5.40	1.3	1.28	0.27	0.21

5-4.6

SES X COMMUNITY TYPE

		NLS 1972				HSB 1980						
SES	COMMUNITY TYPE	SAMPLE N	WEIGHTED N	MEAN	S.D.	SAMPLE N	WEIGHTED N	MEAN	S.D.	POOLED S.D.	1980-1972 DIFFERENCE	EFFECT SIZE
LOW	URBAN	1372	197577	5.19	1.4	2419	196817	5.26	1.4	1.42	0.07	0.05
LOW	SUBURBAN	1728	280161	5.19	1.4	3103	305581	5.28	1.4	1.39	0.09	0.07
LOW	RURAL	1535	239407	5.40	1.5	2813	301782	5.51	1.4	1.45	0.11	0.08
MIDDLE	URBAN	2174	405151	5.41	1.4	2663	266859	5.52	1.4	1.41	0.10	0.07
MIDDLE	SUBURBAN	3752	776124	5.50	1.4	6274	703130	5.67	1.4	1.40	0.17 *	0.12
MIDDLE	RURAL	1742	327138	5.68	1.4	3805	447024	5.85	1.4	1.39	0.17 *	0.12
HIGH	URBAN	966	177444	5.94	1.3	1082	116816	6.21	1.4	1.38	0.27 *	0.20
HIGH	SUBURBAN	2427	472603	6.01	1.4	3779	447999	6.07	1.4	1.40	0.06	0.04
HIGH	RURAL	389	70032	5.94	1.3	1289	154592	6.26	1.3	1.35	0.32 *	0.23

*SIGNIFICANT AT .05 OR LESS

APPENDIX D

Test Score Partitioning

Table D-1

IRT VOCABULARY
Grouping Variable: Total

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
	BY: TOTAL											
TOTAL	TOTAL	2860438.	2666481.	1.000	1.000	6.55	5.70	-0.85*	100.00			
	SUBGROUPS COMBINED:	2860438.	2666481.			6.55	5.70	-0.85*	100.00	-0.00	-0.85	0.00
	BY: SEX											
TOTAL	MALE	1425843.	1218450.	0.499	0.473	6.44	5.90	-0.54*	33.16			
TOTAL	FEMALE	1433577.	1355969.	0.501	0.527	6.67	5.69	-0.98*	66.84			
	SUBGROUPS COMBINED:	2859421.	2574419.			6.55	5.79	-0.77*	100.00	0.01	-0.76	-0.01
	BY: SES											
TOTAL	LOW	693845.	707354.	0.243	0.272	4.59	4.05	-0.53*	25.35			
TOTAL	MIDDLE	1460802.	1269007.	0.512	0.487	6.52	5.77	-0.75*	45.70			
TOTAL	HIGH	695762.	627386.	0.244	0.241	8.63	7.71	-0.93*	28.95			
	SUBGROUPS COMBINED:	2850409.	2603746.			6.56	5.77	-0.79*	100.00	-0.06	-0.74	0.01
	BY: RACE											
TOTAL	WHITE+AS+IND	2438469.	2164617.	0.881	0.831	7.04	6.22	-0.82*	80.44			
TOTAL	BLACK	234726.	285008.	0.085	0.109	3.28	3.20	-0.08	10.31			
TOTAL	MEXICAN-AMER	68274.	83936.	0.025	0.032	3.47	3.50	0.03	2.59			
TOTAL	OTH HISPANIC	25698.	71148.	0.009	0.027	4.36	3.71	-0.65	6.66			
	SUBGROUPS COMBINED:	2767167.	2604709.			6.60	5.73	-0.87*	100.00	-0.17	-0.73	0.03
	BY: CURRICULUM											
TOTAL	ACADEMIC	1322785.	1009104.	0.462	0.384	8.29	7.62	-0.67*	48.04			
TOTAL	VOC+GENERAL	1537350.	1619997.	0.538	0.616	5.06	4.56	-0.50*	51.96			
	SUBGROUPS COMBINED:	2860135.	2629101.			6.55	5.73	-0.82*	100.00	-0.25	-0.58	0.01
	BY: SCHOOL TYPE											
PUBLIC	TOTAL	2540625.	2399504.	0.914	0.900	6.44	5.52	-0.92*	92.19			
NON-PUBLIC	TOTAL	240567.	266977.	0.086	0.100	8.21	7.30	-0.92*	7.81			
	SUBGROUPS COMBINED:	2781191.	2666481.			6.60	5.70	-0.90*	100.00	0.02	-0.92	0.00
	BY: COMMUNITY TYPE											
URBAN	TOTAL	702623.	513906.	0.251	0.193	6.28	5.20	-1.07*	20.76			
SUBURBAN	TOTAL	1480061.	1303509.	0.530	0.489	7.11	6.14	-0.97*	54.90			
RURAL	TOTAL	611217.	849066.	0.219	0.318	5.75	5.32	-0.42*	24.34			
	SUBGROUPS COMBINED:	2793902.	2666481.			6.61	5.70	-0.90*	100.00	-0.09	-0.88	0.06

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
	BY: TOTAL											
TOTAL	TOTAL	2860438.	2666481.	1.000	1.000	6.55	5.70	-0.85*	100.00			
	SUBGROUPS COMBINED:	2860438.	2666481.			6.55	5.70	-0.85*	100.00	-0.00	-0.85	0.00
	BY: GEOG. REGION											
TOTAL	NORTHEAST	777868.	609829.	0.272	0.229	7.33	6.48	-0.86*	26.97			
TOTAL	N. CENTRAL	831402.	785432.	0.291	0.295	6.58	5.85	-0.74*	25.52			
TOTAL	SOUTH	773440.	806215.	0.270	0.302	5.63	4.84	-0.80*	31.81			
TOTAL	WEST	477727.	465005.	0.167	0.174	6.71	5.94	-0.77*	15.70			
	SUBGROUPS COMBINED:	2860438.	2666481.			6.55	5.70	-0.85*	100.00	-0.06	-0.79	0.00
	BY: HOMEWORK/WK											
TOTAL	L.T. 5 HOURS	1845836.	2001304.	0.648	0.753	6.17	5.26	-0.91*	85.20			
TOTAL	5 HOURS,MORE	1000873.	655264.	0.352	0.247	7.29	7.08	-0.20	14.80			
	SUBGROUPS COMBINED:	2846709.	2656567.			6.56	5.71	-0.86*	100.00	-0.12	-0.66	-0.07
	BY: MORE AC EMPHASIS											
TOTAL	AGREE	1254152.	1755863.	0.503	0.718	5.93	5.64	-0.28*	42.19			
TOTAL	DISAGREE	1239234.	689406.	0.497	0.282	7.04	5.91	-1.13*	57.81			
	SUBGROUPS COMBINED:	2493386.	2445268.			6.48	5.72	-0.76*	100.00	-0.24	-0.70	0.18
	BY: %WHITE IN SCHOOL											
TOTAL	0-89%	991459.	1101395.	0.356	0.434	5.62	5.14	-0.48*	34.08			
TOTAL	90-100%	1791635.	1435905.	0.644	0.566	7.06	6.17	-0.88*	65.92			
	SUBGROUPS COMBINED:	2783094.	2537300.			6.54	5.73	-0.82*	100.00	-0.11	-0.74	0.03
	BY: EDUCATION PLANNED											
LESS THAN HS	TOTAL	47186.	10698.	0.022	0.004	4.28	2.66	-1.62*	-3.09			
HIGH SCHOOL	TOTAL	362347.	502502.	0.167	0.193	5.44	3.81	-1.63*	24.71			
VOC/JR COL	TOTAL	661843.	907915.	0.305	0.348	6.00	4.71	-1.28*	34.25			
COLLEGE	TOTAL	820637.	662089.	0.379	0.254	8.30	6.83	-1.47*	35.13			
GRAD/PROF	TOTAL	275284.	524265.	0.127	0.201	9.60	8.07	-1.54*	9.01			
	SUBGROUPS COMBINED:	2167297.	2607470.			7.20	5.74	-1.46*	100.00	-0.00	-1.45	0.00
	BY: STUDY AIDS IN HOME											
2 OR FEWER	TOTAL	565540.	820351.	0.198	0.308	5.12	4.59	-0.53*	37.64			
3 OR MORE	TOTAL	2294897.	1846130.	0.802	0.692	6.91	6.19	-0.71*	62.36			
	SUBGROUPS COMBINED:	2860438.	2666481.			6.55	5.70	-0.85*	100.00	-0.20	-0.68	0.02

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
BY: SEMESTERS OF FOREIGN LANGUAGE TAKEN SOPH-SR YEAR												
3 OR FEWER	TOTAL	2090521.	2025039.	0.731	0.759	5.85	5.08	-0.77*	71.06			
4 OR MORE	TOTAL	769917.	641442.	0.269	0.241	8.46	7.66	-0.80*	28.94			
	SUBGROUPS COMBINED:	2860438.	2666481.			6.55	5.70	-0.85*	100.00	-0.07	-0.78	0.00
BY: PARTICIPATE IN ATHLETICS												
NO	TOTAL	1559175.	1273380.	0.552	0.483	6.55	5.57	-0.98*	55.42			
YES	TOTAL	1266320.	1363250.	0.448	0.517	6.62	5.88	-0.74*	44.58			
	SUBGROUPS COMBINED:	2825495.	2636630.			6.58	5.73	-0.85*	100.00	0.00	-0.87	0.02
BY: SCHOOLING MOTHER WANTS FOR STUDENT												
NO 4-YR COL.	TOTAL	1005835.	851633.	0.435	0.402	5.25	4.37	-0.89*	31.07			
4-YR COLLEGE	TOTAL	1307015.	1269422.	0.565	0.598	8.14	6.96	-1.19*	68.93			
	SUBGROUPS COMBINED:	2312850.	2121054.			6.89	5.92	-0.97*	100.00	0.10	-1.05	-0.01

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
BY: PROJECTS/LABS USED IN COURSES THIS YEAR												
NEVER,SELDOM	TOTAL	1437820.	1464632.	0.514	0.566	6.08	5.27	-0.81*	57.16			
OFTEN,FREQ.	TOTAL	1356871.	1122084.	0.486	0.434	7.17	6.40	-0.78*	42.84			
SUBGROUPS COMBINED:		2794691.	2586716.			6.61	5.76	-0.85*	100.00	-0.06	-0.79	-0.00
BY: ESSAYS USED IN COURSES THIS YEAR												
NEVER,SELDOM	TOTAL	995896.	949652.	0.355	0.369	5.92	4.95	-0.97*	43.39			
OFTEN,FREQ.	TOTAL	1805717.	1621616.	0.645	0.631	6.97	6.22	-0.75*	56.61			
SUBGROUPS COMBINED:		2801613.	2571268.			6.60	5.75	-0.85*	100.00	-0.01	-0.83	-0.00
BY: PROPORTION OF FT TEACHERS WITH ADVANCED DEGREES												
0-49%	TOTAL	1904970.	1359840.	0.674	0.526	6.29	5.45	-0.84*	46.94			
50-100%	TOTAL	921880.	1224012.	0.326	0.474	7.10	5.97	-1.13*	53.06			
SUBGROUPS COMBINED:		2826850.	2583852.			6.56	5.70	-0.86*	100.00	0.12	-0.93	-0.04
BY: PROPORTION OF LAST YEAR'S GRADUATES NOW IN COLLEGE												
0-30%	TOTAL	320994.	477376.	0.113	0.183	4.96	4.57	-0.39*	21.57			
30-49%	TOTAL	1072007.	1012141.	0.378	0.389	6.05	5.38	-0.67*	31.35			
50-69%	TOTAL	937672.	697691.	0.331	0.268	6.86	5.93	-0.93*	31.63			
70-100%	TOTAL	502310.	416185.	0.177	0.160	8.08	7.43	-0.65*	15.45			
SUBGROUPS COMBINED:		2832982.	2603393.			6.55	5.71	-0.85*	100.00	-0.16	-0.72	0.04
BY: HIGH SCHOOL OFFERS ADVANCED PLACEMENT COURSES												
YES AP	TOTAL	814253.	1205570.	0.318	0.467	7.13	6.18	-0.95*	41.73			
NO AP	TOTAL	1746361.	1378247.	0.682	0.533	6.31	5.29	-1.02*	58.27			
SUBGROUPS COMBINED:		2560614.	2583816.			6.57	5.71	-0.87*	100.00	0.12	-1.00	0.01
BY: SEMESTERS OF MATHEMATICS TAKEN SOPH-SENIOR YEAR												
4 OR FEWER	TOTAL	2030138.	1655776.	0.710	0.621	6.08	5.04	-1.04*	70.69			
5 OR MORE	TOTAL	830300.	1010706.	0.290	0.379	7.71	6.78	-0.93*	29.31			
SUBGROUPS COMBINED:		2860438.	2666481.			6.55	5.70	-0.85*	100.00	0.14	-1.01	0.01
BY: SEMESTERS OF SCIENCE TAKEN SOPH-SENIOR YEAR												
4 OR FEWER	TOTAL	2171382.	1995678.	0.759	0.748	6.16	5.12	-1.04*	91.24			
5 OR MORE	TOTAL	689056.	670804.	0.241	0.252	7.79	7.44	-0.35*	8.76			
SUBGROUPS COMBINED:		2860438.	2666481.			6.55	5.70	-0.85*	100.00	0.02	-0.88	0.01

Table D-2

IRT READING
Grouping Variable: Total

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
	BY: TOTAL											
TOTAL	TOTAL	2863482.	2658958.	1.000	1.000	9.89	8.84	-1.05*	100.00			
	SUBGROUPS COMBINED:	2863482.	2658958.			9.89	8.84	-1.05*	100.00	-0.00	-1.05	0.00
	BY: SEX											
TOTAL	MALE	1427414.	1215335.	0.499	0.473	9.83	8.95	-0.88*	44.53			
TOTAL	FEMALE	1435051.	1352068.	0.501	0.527	9.95	8.96	-0.99*	55.47			
	SUBGROUPS COMBINED:	2862465.	2567403.			9.89	8.95	-0.93*	100.00	0.00	-0.93	-0.00
	BY: SES											
TOTAL	LOW	695440.	705500.	0.244	0.272	7.65	6.73	-0.92*	32.37			
TOTAL	MIDDLE	1461882.	1264873.	0.512	0.487	9.92	9.05	-0.86*	43.64			
TOTAL	HIGH	695829.	626350.	0.244	0.241	12.13	11.20	-0.94*	23.99			
	SUBGROUPS COMBINED:	2853152.	2597223.			9.90	8.94	-0.97*	100.00	-0.07	-0.90	-0.00
	BY: RACE											
TOTAL	WHITE+AS+IND	2439707.	2159015.	0.881	0.831	10.51	9.57	-0.94*	74.69			
TOTAL	BLACK	235572.	283823.	0.085	0.109	5.94	5.56	-0.38	12.92			
TOTAL	MEXICAN-AMER	68498.	83914.	0.025	0.032	6.28	5.60	-0.69	4.63			
TOTAL	OTH HISPANIC	25874.	71074.	0.009	0.027	6.49	5.72	-0.77	7.76			
	SUBGROUPS COMBINED:	2769651.	2597826.			9.98	8.89	-1.08*	100.00	-0.21	-0.89	0.02
	BY: CURRICULUM											
TOTAL	ACADEMIC	1323908.	1006476.	0.462	0.384	11.99	11.33	-0.66*	41.41			
TOTAL	VOC+GENERAL	1539272.	1615794.	0.538	0.616	8.08	7.35	-0.73*	58.59			
	SUBGROUPS COMBINED:	2863180.	2622270.			9.89	8.88	-1.01*	100.00	-0.31	-0.69	-0.01
	BY: SCHOOL TYPE											
PUBLIC	TOTAL	2543636.	2391769.	0.914	0.900	9.78	8.66	-1.12*	91.74			
NON-PUBLIC	TOTAL	240395.	267189.	0.086	0.100	11.59	10.46	-1.14*	8.26			
	SUBGROUPS COMBINED:	2784031.	2658958.			9.93	8.84	-1.10*	100.00	0.03	-1.12	-0.00
	BY: COMMUNITY TYPE											
URBAN	TOTAL	703504.	511844.	0.252	0.192	9.46	8.21	-1.25*	18.74			
SUBURBAN	TOTAL	1481264.	1298837.	0.530	0.488	10.49	9.29	-1.20*	53.95			
RURAL	TOTAL	612151.	848277.	0.219	0.319	9.27	8.52	-0.74*	27.31			
	SUBGROUPS COMBINED:	2796919.	2658958.			9.96	8.84	-1.12*	100.00	-0.06	-1.11	0.05

IRT READING

GROUPING VARIABLE: TOTAL

		WEIGHTED N 1972	WEIGHTED N 1980	PROPORTION OF POPULATION 1972	PROPORTION OF POPULATION 1980	MEAN SCORE 1972	MEAN SCORE 1980	1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
	BY: GEOG. REGION											
TOTAL	NORTHEAST	777802.	605302.	0.272	0.228	10.55	9.57	-0.98*	23.99			
TOTAL	N. CENTRAL	833505.	783970.	0.291	0.295	9.97	9.21	-0.76*	21.34			
TOTAL	SOUTH	773939.	806228.	0.270	0.303	9.14	7.83	-1.31*	40.27			
TOTAL	WEST	478236.	463458.	0.167	0.174	9.88	9.01	-0.87*	14.40			
	SUBGROUPS COMBINED:	2863482.	2658958.			9.89	8.84	-1.05*	100.00	-0.05	-0.99	-0.01
	BY: HOMEWORK/WK											
TOTAL	L.T. 5 HOURS	1847871.	1994447.	0.648	0.753	9.42	8.25	-1.17*	88.59			
TOTAL	5 HOURS,MORE	1001820.	655167.	0.352	0.247	10.78	10.66	-0.11	11.41			
	SUBGROUPS COMBINED:	2849691.	2649615.			9.90	8.85	-1.05*	100.00	-0.14	-0.80	-0.11
	BY: MORE AC EMPHASIS											
TOTAL	AGREE	1256334.	1750236.	0.503	0.718	9.11	8.79	-0.32*	41.67			
TOTAL	DISAGREE	1240246.	687661.	0.497	0.282	10.49	9.15	-1.34*	58.33			
	SUBGROUPS COMBINED:	2496580.	2437897.			9.80	8.89	-0.91*	100.00	-0.30	-0.83	0.22
	BY: %WHITE IN SCHOOL											
TOTAL	0-89%	993257.	1096594.	0.357	0.433	8.83	8.03	-0.80*	42.03			
TOTAL	90-100%	1792723.	1433466.	0.643	0.567	10.47	9.50	-0.96*	57.97			
	SUBGROUPS COMBINED:	2785980.	2530061.			9.88	8.86	-1.02*	100.00	-0.13	-0.91	0.01
	BY: EDUCATION PLANNED											
LESS THAN HS	TOTAL	47273.	10698.	0.022	0.004	6.20	3.36	-2.83*	-3.69			
HIGH SCHOOL	TOTAL	362691.	500280.	0.167	0.192	8.55	6.01	-2.54*	28.88			
VOC/JR COL	TOTAL	662633.	906129.	0.305	0.348	9.48	7.73	-1.75*	35.23			
COLLEGE	TOTAL	821503.	659693.	0.379	0.254	12.22	10.60	-1.62*	31.17			
GRAD/PROF	TOTAL	275156.	523756.	0.127	0.201	13.48	11.70	-1.78*	8.41			
	SUBGROUPS COMBINED:	2169256.	2600556.			10.80	8.91	-1.89*	100.00	-0.01	-1.86	-0.02
	BY: STUDY AIDS IN HOME											
2 OR FEWER	TOTAL	566472.	817187.	0.198	0.307	8.34	7.40	-0.94*	43.60			
3 OR MORE	TOTAL	2297010.	1841770.	0.802	0.693	10.27	9.47	-0.79*	56.40			
	SUBGROUPS COMBINED:	2863482.	2658958.			9.89	8.84	-1.05*	100.00	-0.21	-0.82	-0.02

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
BY: PROJECTS/LABS USED IN COURSES THIS YEAR												
NEVER,SELDOM	TOTAL	1438807.	1458606.	0.514	0.565	9.32	8.24	-1.08*	61.62			
OFTEN,FREQ.	TOTAL	1358683.	1121409.	0.486	0.435	10.66	9.83	-0.84*	38.38			
SUBGROUPS COMBINED:		2797490.	2580015.			9.97	8.93	-1.04*	100.00	-0.07	-0.96	-0.01
BY: ESSAYS USED IN COURSES THIS YEAR												
NEVER,SELDOM	TOTAL	997056.	947335.	0.356	0.369	9.17	7.87	-1.30*	46.90			
OFTEN,FREQ.	TOTAL	1807355.	1617189.	0.644	0.631	10.41	9.53	-0.87*	53.10			
SUBGROUPS COMBINED:		2804411.	2564524.			9.97	8.92	-1.05*	100.00	-0.02	-1.03	-0.01
BY: PROPORTION OF FT TEACHERS WITH ADVANCED DEGREES												
0-49%	TOTAL	1907481.	1357989.	0.674	0.527	9.63	8.60	-1.03*	48.12			
50-100%	TOTAL	922414.	1218518.	0.326	0.473	10.42	9.11	-1.32*	51.88			
SUBGROUPS COMBINED:		2829895.	2576507.			9.89	8.84	-1.05*	100.00	0.12	-1.12	-0.04
BY: PROPORTION OF LAST YEAR'S GRADUATES NOW IN COLLEGE												
0-30%	TOTAL	322141.	475223.	0.114	0.183	8.01	7.55	-0.46*	20.75			
30-49%	TOTAL	1073598.	1011020.	0.379	0.389	9.45	8.51	-0.93*	35.59			
50-69%	TOTAL	937736.	692848.	0.331	0.267	10.26	9.21	-1.05*	29.27			
70-100%	TOTAL	502327.	417165.	0.177	0.161	11.35	10.57	-0.78*	14.39			
SUBGROUPS COMBINED:		2835802.	2596256.			9.89	8.85	-1.04*	100.00	-0.18	-0.89	0.04
BY: HIGH SCHOOL OFFERS ADVANCED PLACEMENT COURSES												
YES AP	TOTAL	815417.	1200793.	0.318	0.466	10.47	9.28	-1.19*	43.75			
NO AP	TOTAL	1747498.	1375595.	0.682	0.534	9.66	8.45	-1.21*	56.25			
SUBGROUPS COMBINED:		2562915.	2576388.			9.92	8.84	-1.08*	100.00	0.12	-1.20	0.00
BY:SEMESTERS OF MATHEMATICS TAKEN SOPH-SENIOR YEAR												
4 OR FEWER	TOTAL	2032255.	1650791.	0.710	0.621	9.27	7.98	-1.29*	71.26			
5 OR MORE	TOTAL	831227.	1008166.	0.290	0.379	11.38	10.24	-1.15*	28.74			
SUBGROUPS COMBINED:		2863482.	2658958.			9.89	8.84	-1.05*	100.00	0.19	-1.25	0.01
BY: SEMESTERS OF SCIENCE TAKEN SOPH-SENIOR YEAR												
4 OR FEWER	TOTAL	2173506.	1988932.	0.759	0.748	9.38	8.10	-1.28*	91.01			
5 OR MORE	TOTAL	689976.	670026.	0.241	0.252	11.47	11.02	-0.44*	8.99			
SUBGROUPS COMBINED:		2863482.	2658958.			9.89	8.84	-1.05*	100.00	0.02	-1.08	0.01

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
BY: SEMESTERS OF FOREIGN LANGUAGE TAKEN SOPH-SR YEAR												
3 OR FEWER	TOTAL	2093906.	2019138.	0.731	0.759	9.04	8.09	-0.95*	71.13			
4 OR MORE	TOTAL	769577.	639819.	0.269	0.241	12.18	11.19	-0.99*	28.87			
SUBGROUPS COMBINED:		2863482.	2658958.			9.89	8.84	-1.05*	100.00	-0.09	-0.96	0.00
BY: PARTICIPATE IN ATHLETICS												
NO	TOTAL	1560839.	1269913.	0.552	0.483	9.76	8.66	-1.09*	49.56			
YES	TOTAL	1267496.	1359451.	0.448	0.517	10.13	9.09	-1.04*	50.44			
SUBGROUPS COMBINED:		2828335.	2629364.			9.92	8.88	-1.04*	100.00	0.03	-1.07	0.00
BY: SCHOOLING MOTHER WANTS FOR STUDENT												
NO 4-YR COL.	TOTAL	1007236.	849489.	0.435	0.401	8.33	7.11	-1.22*	34.69			
4-YR COLLEGE	TOTAL	1308207.	1266371.	0.565	0.599	11.94	10.54	-1.41*	65.31			
SUBGROUPS COMBINED:		2315443.	2115860.			10.37	9.16	-1.21*	100.00	0.12	-1.32	-0.01

IRT MATHEMATICS
Grouping Variable: Total

		WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
		1972	1980	1972	1980	1972	1980					
	BY: TOTAL											
TOTAL	TOTAL	2862252.	2650446.	1.000	1.000	12.94	11.90	-1.03*	100.00			
	SUBGROUPS COMBINED:	2862252.	2650446.			12.94	11.90	-1.03*	100.00	-0.00	-1.03	0.00
	BY: SEX											
TOTAL	MALE	1426314.	1213609.	0.498	0.474	13.79	12.83	-0.96*	55.01			
TOTAL	FEMALE	1434921.	1346152.	0.502	0.526	12.09	11.39	-0.70*	44.99			
	SUBGROUPS COMBINED:	2861235.	2559761.			12.94	12.07	-0.87*	100.00	-0.04	-0.83	0.01
	BY: SES											
TOTAL	LOW	694282.	701703.	0.243	0.271	9.39	8.44	-0.95*	38.74			
TOTAL	MIDDLE	1461863.	1263636.	0.513	0.488	12.90	12.16	-0.74*	39.32			
TOTAL	HIGH	696135.	624635.	0.244	0.241	16.62	15.83	-0.79*	21.94			
	SUBGROUPS COMBINED:	2852280.	2589974.			12.96	12.04	-0.92*	100.00	-0.11	-0.81	-0.01
	BY: RACE											
TOTAL	WHITE+AS+IND	2439673.	2153015.	0.881	0.831	13.90	12.97	-0.93*	74.28			
TOTAL	BLACK	235045.	284281.	0.085	0.110	6.50	6.69	0.19	13.01			
TOTAL	MEXICAN-AMER	68165.	82650.	0.025	0.032	8.02	7.54	-0.48	4.77			
TOTAL	OTH HISPANIC	25837.	69596.	0.009	0.027	7.48	7.90	0.41	7.94			
	SUBGROUPS COMBINED:	2768720.	2589543.			13.07	11.97	-1.09*	100.00	-0.34	-0.81	0.05
	BY: CURRICULUM											
TOTAL	ACADEMIC	1323927.	1007295.	0.463	0.385	16.66	16.17	-0.49*	48.81			
TOTAL	VOC+GENERAL	1538022.	1606553.	0.537	0.615	9.74	9.33	-0.41*	51.19			
	SUBGROUPS COMBINED:	2861949.	2613849.			12.94	11.96	-0.98*	100.00	-0.53	-0.45	0.01
	BY: SCHOOL TYPE											
PUBLIC	TOTAL	2542234.	2383107.	0.914	0.899	12.79	11.59	-1.20*	97.01			
NON-PUBLIC	TOTAL	240567.	267339.	0.086	0.101	15.37	14.71	-0.67	2.99			
	SUBGROUPS COMBINED:	2782800.	2650446.			13.01	11.90	-1.11*	100.00	0.04	-1.15	0.01
	BY: COMMUNITY TYPE											
URBAN	TOTAL	703168.	509127.	0.251	0.192	12.16	10.98	-1.18*	15.41			
SUBURBAN	TOTAL	1481125.	1295212.	0.530	0.489	13.81	12.70	-1.12*	51.03			
RURAL	TOTAL	611858.	846107.	0.219	0.319	12.15	11.24	-0.91*	33.56			
	SUBGROUPS COMBINED:	2796151.	2650446.			13.04	11.90	-1.13*	100.00	-0.07	-1.09	0.02

		WEIGHTED N 1972	WEIGHTED N 1980	PROPORTION OF POPULATION 1972	PROPORTION OF POPULATION 1980	MEAN SCORE 1972	MEAN SCORE 1980	1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
	BY: GEOG. REGION											
TOTAL	NORTHEAST	778067.	604620.	0.272	0.228	13.90	13.36	-0.53	15.82			
TOTAL	N. CENTRAL	833316.	783062.	0.291	0.295	13.29	12.59	-0.70*	19.73			
TOTAL	SOUTH	773173.	805015.	0.270	0.304	11.95	10.07	-1.88*	58.51			
TOTAL	WEST	477695.	457749.	0.167	0.173	12.37	12.04	-0.34	5.94			
	SUBGROUPS COMBINED:	2862252.	2650446.			12.94	11.90	-1.03*	100.00	-0.08	-0.91	-0.04
	BY: HOMEWORK/WK											
TOTAL	L.T. 5 HOURS	1847143.	1987737.	0.648	0.753	12.11	10.86	-1.25*	99.03			
TOTAL	5 HOURS,MORE	1001429.	653119.	0.352	0.247	14.52	15.14	0.62*	0.97			
	SUBGROUPS COMBINED:	2848572.	2640856.			12.96	11.92	-1.04*	100.00	-0.25	-0.59	-0.19
	BY: MORE AC EMPHASIS											
TOTAL	AGREE	1255178.	1743853.	0.503	0.717	12.06	11.83	-0.23	38.72			
TOTAL	DISAGREE	1240098.	687015.	0.497	0.283	13.60	12.35	-1.25*	61.28			
	SUBGROUPS COMBINED:	2495276.	2430868.			12.82	11.98	-0.85*	100.00	-0.33	-0.74	0.22
	BY: %WHITE IN SCHOOL											
TOTAL	0-89%	992048.	1094218.	0.356	0.434	11.28	10.65	-0.63*	41.21			
TOTAL	90-100%	1792950.	1427348.	0.644	0.566	13.86	12.97	-0.89*	58.79			
	SUBGROUPS COMBINED:	2784997.	2521566.			12.94	11.96	-0.98*	100.00	-0.20	-0.80	0.02
	BY: EDUCATION PLANNED											
LESS THAN HS	TOTAL	47273.	10600.	0.022	0.004	7.06	5.26	-1.80	-5.24			
HIGH SCHOOL	TOTAL	362642.	497903.	0.167	0.192	10.10	7.36	-2.74*	27.37			
VOC/JR COL	TOTAL	662941.	903189.	0.306	0.348	12.02	9.83	-2.19*	37.25			
COLLEGE	TOTAL	821320.	659451.	0.379	0.254	17.00	14.87	-2.13*	37.98			
GRAD/PROF	TOTAL	275284.	522499.	0.127	0.201	18.55	16.68	-1.87*	2.64			
	SUBGROUPS COMBINED:	2169461.	2593643.			14.30	12.00	-2.31*	100.00	-0.09	-2.21	-0.00
	BY: STUDY AIDS IN HOME											
2 OR FEWER	TOTAL	565486.	813346.	0.198	0.307	10.46	9.64	-0.81*	50.40			
3 OR MORE	TOTAL	2296765.	1837100.	0.802	0.693	13.55	12.91	-0.64*	49.60			
	SUBGROUPS COMBINED:	2862252.	2650446.			12.94	11.90	-1.03*	100.00	-0.34	-0.68	-0.02

	WEIGHTED N		PROPORTION OF POPULATION		MEAN SCORE		1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
	1972	1980	1972	1980	1972	1980					
BY: PROJECTS/LABS USED IN COURSES THIS YEAR											
NEVER,SELDOM TOTAL	1439303.	1455195.	0.515	0.566	12.03	10.89	-1.14*	68.10			
OFTEN,FREQ. TOTAL	1357758.	1117810.	0.485	0.434	14.16	13.53	-0.63*	31.90			
SUBGROUPS COMBINED:	2797061.	2573005.			13.06	12.04	-1.03*	100.00	-0.11	-0.89	-0.03
BY: ESSAYS USED IN COURSES THIS YEAR											
NEVER,SELDOM TOTAL	997045.	944795.	0.356	0.369	12.10	10.58	-1.52*	56.20			
OFTEN,FREQ. TOTAL	1806937.	1612411.	0.644	0.631	13.58	12.88	-0.70*	43.80			
SUBGROUPS COMBINED:	2803982.	2557206.			13.06	12.03	-1.02*	100.00	-0.02	-0.99	-0.01
BY: PROPORTION OF FT TEACHERS WITH ADVANCED DEGREES											
0-49% TOTAL	1906576.	1349955.	0.674	0.526	12.59	11.47	-1.12*	50.87			
50-100% TOTAL	922088.	1217193.	0.326	0.474	13.69	12.37	-1.32*	49.13			
SUBGROUPS COMBINED:	2828664.	2567148.			12.95	11.89	-1.05*	100.00	0.16	-1.19	-0.03
BY: PROPORTION OF LAST YEAR'S GRADUATES NOW IN COLLEGE											
0-30% TOTAL	321401.	470968.	0.113	0.182	9.97	9.58	-0.39	26.92			
30-49% TOTAL	1072530.	1008366.	0.378	0.390	12.21	11.39	-0.82*	32.08			
50-69% TOTAL	938296.	695090.	0.331	0.269	13.45	12.41	-1.04*	30.55			
70-100% TOTAL	502581.	413334.	0.177	0.160	15.46	15.07	-0.39	10.45			
SUBGROUPS COMBINED:	2834808.	2587758.			12.94	11.92	-1.02*	100.00	-0.29	-0.77	0.04
BY: HIGH SCHOOL OFFERS ADVANCED PLACEMENT COURSES											
YES AP TOTAL	815138.	1197655.	0.318	0.466	14.00	12.78	-1.22*	39.05			
NO AP TOTAL	1746676.	1370544.	0.682	0.534	12.51	11.15	-1.36*	60.95			
SUBGROUPS COMBINED:	2561814.	2568199.			12.99	11.91	-1.08*	100.00	0.22	-1.32	0.02

		WEIGHTED N 1972	WEIGHTED N 1980	PROPORTION OF POPULATION 1972	PROPORTION OF POPULATION 1980	MEAN SCORE 1972	MEAN SCORE 1980	1980-1972 DIFFERENCE	% OF TOTAL CHANGE DUE TO GROUP	TOTAL CHANGE DUE TO POP. SHIFT	TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES	TOTAL CHANGE DUE TO INTER-ACTION
BY: SEMESTERS OF FOREIGN LANGUAGE TAKEN SOPH-SR YEAR												
3 OR FEWER	TOTAL	2092335.	2011342.	0.731	0.759	11.65	10.71	-0.94*	72.40			
4 OR MORE	TOTAL	769917.	639184.	0.269	0.241	16.43	15.65	-0.78*	27.60			
SUBGROUPS COMBINED:		2862252.	2650446.			12.94	11.90	-1.03*	100.00	-0.13	-0.90	-0.00
BY: PARTICIPATE IN ATHLETICS												
NO	TOTAL	1559989.	1265014.	0.552	0.483	12.09	11.06	-1.02*	41.73			
YES	TOTAL	1267227.	1356205.	0.448	0.517	14.13	12.82	-1.31*	58.27			
SUBGROUPS COMBINED:		2827216.	2621220.			13.00	11.97	-1.03*	100.00	0.14	-1.15	-0.02
BY: SCHOOLING MOTHER WANTS FOR STUDENT												
NO 4-YR COL.	TOTAL	1006432.	845980.	0.435	0.401	10.23	9.07	-1.16*	26.99			
4-YR COLLEGE	TOTAL	1308145.	1264195.	0.565	0.599	16.37	14.64	-1.72*	73.01			
SUBGROUPS COMBINED:		2314577.	2110175.			13.70	12.41	-1.29*	100.00	0.21	-1.48	-0.02

APPENDIX E

Analysis of Covariance Partition of Score Change

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Analysis of Covariance Partition of Score Change

The analysis of covariance model can be written in the following computational form:

$$\alpha = (\bar{Y}_j - \bar{Y}_k) - b_p(\bar{X}_j - \bar{X}_k)$$

where

α = the treatment effect or equivalently the difference between adjusted means.

b_p = pooled within group regression coefficient.

$\bar{Y}_j$ = observed mean on the dependent variable in group j.

$\bar{X}_j$ = observed mean on the covariate in group j.

Now more generally but in terms of the NLS and HSB cohort means we have:

$$\alpha = (\bar{Y}_{72} - \bar{Y}_{80}) - (\hat{\bar{Y}}_{72} - \hat{\bar{Y}}_{80})$$

where $\hat{\bar{Y}}_{72}$ and $\hat{\bar{Y}}_{80}$ are the estimated within cohort means where the estimation is from the vector of covariates. In the "step down" procedure used here the $\hat{\bar{Y}}$'s are first estimated using the covariate vector based on all the blocks (the full model) then reestimated leaving out the block of interest. The "net" affect of the block left out is the difference between the estimated mean in the reduced model and those in the full model or

$$\alpha_R - \alpha_F = (\hat{\bar{Y}}_{72,R} - \hat{\bar{Y}}_{80,R}) - (\hat{\bar{Y}}_{72,F} - \hat{\bar{Y}}_{80,F})$$

where

$\alpha_R - \alpha_F$ = "net" effect of the block left out. If the difference based on the reduced model is large compared to the full model then the block left out has a relatively strong positive relationship with score decline. That is, it is a potential contributor to score decline. If the "net" effect of a block that is left out is negative then $\hat{\bar{Y}}_{80,R} > \hat{\bar{Y}}_{72,R}$ indicating that changes in the covariate means in the "left out" block were in the direction of resisting score decline.

Inspection of either the standardized partial regression weights and/or the structure coefficients (i.e., the correlation between variables in a block and the covariate composite score for the block) help to identify which variables in the block contribute the most to the blocks' net effect. This information along with the variables correlation with the "dummy" code for group membership pretty much tell the story.

IMPORTANCE OF INDIVIDUAL DEMOGRAPHIC, SCHOOL, AND STUDENT VARIABLES IN EXPLAINING SCORE DECLINES AS INDICATED BY STRUCTURE COEFFICIENTS GREATER THAN ± .20[b] (CORRELATIONS WITH COVARIATE COMPOSITE)

	VOCABULARY R=.61	READ R=.58	MATH R=.69	r_{xd}[a]
DEMOGRAPHICS				
WHITE	.49	.50	.45	.07
HIGH SES	.48	.43	.42	.00
SUBURBAN	.21	---	---	.04
NORTHEAST	.20	---	---	.05
STUDENT SCHOOL BEHAVIORS				
NUMBER OF HOMEWORK HOURS	.30	.29	.30	.11
STUDENT EDUCATIONAL PLANS	.61	.64	.72	-.02
NUMBER OF LABS	.28	.29	.28	.06
NUMBER OF ESSAYS	.26	.24	---	.01
SEMESTERS MATH	.39	.41	.59	-.03
SEMESTERS SCIENCE	.48	.48	.54	.11
SEMESTERS FOREIGN LANGUAGE	.62	.59	.54	.23
ACADEMIC CURRICULUM	.67	.67	.68	.08
VOCATIONAL CURRICULUM	-.41	-.41	-.42	-.03
SCHOOL CHARACTERISTICS				
BUILDING CONDITIONS	.20	---	---	.10
QUALITY OF ACADEMIC INSTITUTION	.31	.29	.26	.10
REPUTATION	.31	.29	.28	.13
VOCATIONAL COUNSELOR	-.41	-.36	-.32	-.34
ACADEMIC EMPHASIS	.41	.38	.32	.55
NUMBER OF LABS (MEAN)	.25	.24	.20	.18
% WHITE TEACHERS	.31	.29	.26	.06
% DROPOUTS	-.28	-.24	-.23	-.14
% WHITE STUDENTS	.38	.36	.33	.06
% ACADEMIC CURRICULUM	.36	.29	.30	.04
SCHOOL TYPE	.21	---	---	-.02
HOMEWORK (MEAN)	.26	.24	.23	.33
SEMESTERS FOREIGN LANGUAGE	.33	.28	.23	.32
HOME EDUCATIONAL SUPPORT				
FATHERS' EDUCATIONAL LEVEL	.48	.43	.42	-.12
MOTHERS' EDUCATIONAL LEVEL	.43	.38	.36	-.10
MOTHERS' EDUCATIONAL PLANS	.56	.57	.55	-.06
STUDY AIDS	.33	.28	.28	.13

[a] r_{xd} is the correlation between a "dummy" code ("1" = 72 cohort); "0" = 80 cohort and a given demographic, school, or student variable. For example a positive correlation between the number of homework hours and "dummy" code indicates that 1972 seniors on average report doing more homework than 1980 seniors.

[b] Variables that are positively (negatively) related to the covariate composite for predicting achievement -- vocabulary, reading, or mathematics and positively (negatively) related to the "dummy" cohort code indicates changes in demographics, student behaviors, or school characteristics that contribute to the score decline. Variables that are positively related to the covariate composite but negatively related to the "dummy" cohort code are changing in a direction that resists the score decline.

U.S. GOVERNMENT PRINTING OFFICE: 1985-496-308